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Thirty-Ninth Biennial Report  
OF THE  
NORTH CAROLINA  
STATE BOARD OF HEALTH



July 1, 1960-June 30, 1962



# MEMBERS OF THE STATE BOARD OF HEALTH

## Appointed by the Governor

LENOX D. BAKER, M. D.

Appointed 1956

Term expires 1965

JASPER C. JACKSON, Ph. G.

(1st appointment 1945)—(2nd appointment 1947)

(3rd re-appointment 1959)

Term expires 1963

BEN W. DAWSEY, D. V. M.

Appointed 1959

Term expires 1963

GLENN L. HOOPER, D. D. S.

Appointed 1961

Term expires 1965

\*\*D. T. REDFEARN, B. S.

Appointed 1961

Term expires 1965

## Elected by the Medical Society of the State of North Carolina

CHARLES R. BUGG, M. D., *President*

Elected 1957

Term expires 1965

JOHN R. BENDER, M. D., *Vice-President*

Elected 1949

Term expires 1965

ROGER W. MORRISON, M. D.

Elected 1957

Term expires 1963

\*\*\*OSCAR S. GOODWIN, M. D.

Elected 1960

Term expires 1963

## EXECUTIVE COMMITTEE

CHARLES R. BUGG, M. D., *President*

JOHN R. BENDER, M. D., *Vice-President*

BEN W. DAWSEY, D. V. M.

J. W. R. NORTON, M. D., *Secretary*

## EXECUTIVE STAFF AS OF JUNE 30, 1962

J. W. R. NORTON, M. D., M.P.H., *Secretary and State Health Director*

(Term expires June 30, 1963)

JACOB KOOMEN, JR., M. D., M.P.H., *Assistant State Health Director*

(Term concurrent with the State Health Director)

J. M. JARRETT, B. S., *Director, Sanitary Engineering Division*

FRED T. FOARD, M. D., *Director, Epidemiology Division*

ROBERT D. HIGGINS, M. D., M.P.H., *Director, Local Health Division*

E. A. PEARSON, JR., D. D. S., M.P.H., *Director, Oral Hygiene Division*

JAMES F. DONNELLY, M. D., *Director, Personal Health Division*

LYNN G. MADDRY, Ph. D., M.S.P.H., *Acting Director, Laboratory Division*

EDWIN S. PRESTON, M. A., LL. D., *Public Relations Officer*

CHARLES L. HARPER, M.S.P.H., *Director, Administrative Services*

\* Mrs. W. Kerr Scott appointed to fill unexpired term of Mrs. J. E. Latta (3 mos.) (Re-appointed 1961)—(Served 3 mos.—resigned).

\*\* Mr. D. T. Redfearn appointed to fill unexpired term of Mrs. W. Kerr Scott, 1961.

\*\*\* Dr. Oscar S. Goodwin elected to fill unexpired term of Dr. Earl W. Brian, 1960.

# STATE BOARD OF HEALTH

5 members appointed by Governor (G) — 4 members elected by Medical Society of the State of North Carolina (S)  
(Year given indicates expiration of present term)

## BOARD MEMBERS

|   |  |
|---|--|
| JOHN R. BENDER, M. D., (S), Vice-Pres., 1965                                    | CHARLES R. BUGG, M. D., (S) President, 1965, Raleigh |
| JOHN W. DAWSEY, D. V. M., (G), 1963   | Winston-Salem  |
| JASPER C. JACKSON, Ph. G., (G), 1963  | Gastonia   |
| LENOX D. BAKER, M. D., (G), 1965  | Lumberton  |
| J. W. R. NORTON, M. D., M. P. H., STATE HEALTH DIRECTOR and SECRETARY-TREASURER | Durham   |
| JACOB KOOMEN, Jr., M. D., M. P. H., ASSISTANT STATE HEALTH DIRECTOR             | Dunn   |
|   | Wadesboro  |

## EPIDEMIOLOGY DIVISION

FRED T. FOARD, M. D.

Accident Prevention Section (Home-Farm)  
Communicable Disease Section  
Occupational Health-Radiation Section  
Public Health Statistics Section  
Tuberculosis Section  
Venereal Disease Section  
Veterinary Public Health Section

CHARLES L. HARPER, M.S.P.H.

Budgets  
Central Files  
Film Library  
Personnel  
Public Health Library  
Public Relations  
Supply and Service

J. M. JARRETT, B. S.

Engineering Section  
Public Water Supplies  
Sewage Disposal  
Radiation Monitoring  
Air Pollution Control  
Insect-Rodent Control Section  
Bedding  
Entomology  
Malaria Control

Salt Marsh Mosquito Control  
Sanitation Section  
Environmental  
Institutional  
Milk  
Public Food and Lodging  
Shellfish

## LABORATORY DIVISION

LYNN G. MADDRY, Ph. D.

James F. DONNELLY, M. D.

Cancer-Heart-Chronic Disease Section  
Crippled Children Section  
Maternal-Child Health Section  
School Health Coordinating Service—jointly  
with Education Department  
Nursing Home Section  
Nutrition Section

Approval of Laboratories  
Biology  
Chemistry  
Cultures  
Cytology  
Microscopy  
Radiation  
Serology  
Virology  
Water

## ADMINISTRATIVE SERVICES

ROBERT D. HIGGINS, M. D., M.P.H.

Administrative Section  
Health Education Section  
Mental Health Section  
Public Health Nursing Section

## SANITARY ENGINEERING DIVISION

J. M. JARRETT, B. S.

Engineering Section  
Public Water Supplies  
Sewage Disposal  
Radiation Monitoring  
Air Pollution Control  
Insect-Rodent Control Section  
Bedding  
Entomology  
Malaria Control

Salt Marsh Mosquito Control  
Sanitation Section  
Environmental  
Institutional  
Milk  
Public Food and Lodging  
Shellfish

## LOCAL HEALTH DIVISION

E. A. PEARSON, D.D.S., M.P.H.

Prevention  
Fluoridation  
School Health Services  
Dental Inspections  
Dental Referrals  
Dental Corrections  
Education  
Classroom talks and demonstrations  
Literature, Puppet Show, Exhibits  
Consultation  
Research

## PERSONAL HEALTH DIVISION

ROBERT D. HIGGINS, M. D., M.P.H.

Administrative Section  
Health Education Section  
Mental Health Section  
Public Health Nursing Section

## ORAL HYGIENE DIVISION

JAMES F. DONNELLY, M. D.

Cancer-Heart-Chronic Disease Section  
Crippled Children Section  
Maternal-Child Health Section  
School Health Coordinating Service—jointly  
with Education Department  
Nursing Home Section  
Nutrition Section

# LOCAL HEALTH DIRECTORS IN NORTH CAROLINA

DECEMBER 31, 1962

| <i>Department</i>             | <i>Health Director</i>         | <i>Address</i>        |
|-------------------------------|--------------------------------|-----------------------|
| Alamance                      | Dr. W. L. Norville             | Burlington, N. C.     |
| Alleghany-Ashe-<br>Watauga    | Dr. Mary B. H. Michal          | Boone, N. C.          |
| Anson                         | Dr. D. W. Davis, P.T.          | Wadesboro, N. C.      |
| Avery                         | Dr. Mary B. H. Michal          | Newland, N. C.        |
| Beaufort                      | Dr. W. A. Browne               | Washington, N. C.     |
| Bertie                        | Dr. W. P. Jordan, P.T.         | Windsor, N. C.        |
| Bladen                        | Dr. Caroline H. Callison       | Elizabethtown, N. C.  |
| Brunswick                     | Dr. A. H. Elliot, P.T.         | Southport, N. C.      |
| Buncombe                      | Dr. H. W. Stevens              | Asheville, N. C.      |
| Burke                         | Dr. G. F. Reeves               | Morganton, N. C.      |
| Cabarrus                      | Dr. John D. Workman            | Concord, N. C.        |
| Caldwell                      | Dr. William Happer             | Lenoir, N. C.         |
| Carteret                      | Dr. Luther Fulcher, P.T.       | Beaufort, N. C.       |
| Catawba-Lincoln-<br>Alexander | Dr. William H. Bandy           | Hickory, N. C.        |
| Cherokee-Clay                 |                                | Murphy, N. C.         |
| Cleveland                     | Dr. Z. P. Mitchell             | Shelby, N. C.         |
| Columbus                      | Dr. J. R. Black                | Whiteville, N. C.     |
| Craven                        | Dr. W. A. Browne               | New Bern, N. C.       |
| Cumberland                    | Dr. M. T. Foster               | Fayetteville, N. C.   |
| Currituck                     | Dr. W. W. Johnston             | Currituck, N. C.      |
| Dare                          | Dr. W. W. Johnston             | Manteo, N. C.         |
| Davidson                      | Dr. Dermot Lohr                | Lexington, N. C.      |
| Davie-Yadkin                  | Dr. A. J. Holton               | Mocksville, N. C.     |
| Duplin                        | Dr. John F. Powers             | Kenansville, N. C.    |
| Durham                        | Dr. O. L. Ader                 | Durham, N. C.         |
| Edgecombe                     | Dr. J. S. Chamblee             | Tarboro, N. C.        |
| Forsyth                       | Dr. Fred G. Pegg               | Winston-Salem, N. C.  |
| Franklin                      |                                | Louisburg, N. C.      |
| Gaston                        | Dr. B. M. Drake                | Gastonia, N. C.       |
| Graham                        | Dr. James E. Stephens          | Robbinsville, N. C.   |
| Granville                     | Dr. J. U. Weaver               | Oxford, N. C.         |
| Greene                        | Dr. Joseph L. Campbell         | Snow Hill, N. C.      |
| Guilford                      | Dr. E. H. Ellinwood            | Greensboro, N. C.     |
| Halifax                       | Dr. Robert F. Young            | Halifax, N. C.        |
| Harnett                       | Dr. Melvin F. Eyerman          | Lillington, N. C.     |
| Haywood                       | Dr. Raymond K. Butler          | Waynesville, N. C.    |
| Henderson                     | Dr. J. D. Lutz, P.T.           | Hendersonville, N. C. |
| Hertford-Gates                | Dr. Quinton E. Cooke           | Winton, N. C.         |
| Hoke                          | Dr. Clifton Davenport,<br>P.T. | Raeford, N. C.        |

| <i>Department</i>                       | <i>Health Director</i>        | <i>Address</i>        |
|---|-------------------------------|-----------------------|
| Hyde                                    | Dr. W. W. Johnston            | Swan Quarter, N. C.   |
| Iredell                                 | Dr. Ernest Ward               | Statesville, N. C.    |
| Jackson-Macon-Swain                     | Dr. James T. Googe            | Sylva, N. C.          |
| Johnston                                | Dr. Robert D. Phillips        | Smithfield, N. C.     |
| Jones                                   | Dr. L. E. Kling               | Trenton, N. C.        |
| Lenoir                                  | Dr. L. E. Kling               | Kinston, N. C.        |
| McDowell                                | Dr. W. F. E. Loftin           | Marion, N. C.         |
| Madison                                 | Dr. Margery J. Lord           | Marshall, N. C.       |
| Martin                                  | Dr. Grover C. Godwin,<br>P.T. | Williamston, N. C.    |
| Mecklenburg                             | Dr. Maurice Kamp              | Charlotte, N. C.      |
| Mitchell-Yancey                         |                               | Burnsville, N. C.     |
| Montgomery                              |                               | Troy, N. C.           |
| Moore                                   | Dr. J. W. Willcox             | Carthage, N. C.       |
| Nash                                    | Dr. J. S. Chamblee            | Nashville, N. C.      |
| New Hanover                             | Dr. C. B. Davis               | Wilmington, N. C.     |
| Northampton                             | Dr. W. R. Parker              | Jackson, N. C.        |
| Onslow                                  | Dr. Eleanor H. Williams       | Jacksonville, N. C.   |
| Orange-Person-<br>Chatham-Lee-Caswell   | Dr. O. David Garvin           | Chapel Hill, N. C.    |
| Pamlico                                 | Dr. L. E. Kling               | Bayboro, N. C.        |
| Pasquotank-Perquimans-<br>Camden-Chowan |                               | Elizabeth City, N. C. |
| Pender                                  | Dr. N. C. Wolfe, P.T.         | Burgaw, N. C.         |
| Pitt                                    | Dr. R. E. Fox                 | Greenville, N. C.     |
| Randolph                                | Dr. H. C. Whims               | Asheboro, N. C.       |
| Richmond                                | Dr. Clem Ham                  | Rockingham, N. C.     |
| Robeson                                 | Dr. E. R. Hardin              | Lumberton, N. C.      |
| Rockingham                              | Dr. C. T. Mangum, P.T.        | Spray, N. C.          |
| Rowan                                   | Dr. M. K. Holler              | Salisbury, N. C.      |
| Rutherford-Polk                         | Dr. Ann B. Lane               | Rutherfordton, N. C.  |
| Sampson                                 | Dr. Caroline H. Callison      | Clinton, N. C.        |
| Scotland                                | Dr. Clem Ham                  | Laurinburg, N. C.     |
| Stanly                                  |                               | Albemarle, N. C.      |
| Stokes                                  | Dr. J. S. Taylor, P.T.        | Danbury, N. C.        |
| Surry                                   | Dr. Robert Caldwell           | Mount Airy, N. C.     |
| Transylvania                            | Dr. John R. Folger, P.T.      | Brevard, N. C.        |
| Tyrrell-Washington                      | Dr. Claudius McGowan,<br>P.T. | Plymouth, N. C.       |
| Union                                   | Dr. Conway Anderson<br>Bolt   | Monroe, N. C.         |
| Vance                                   | Dr. J. U. Weaver              | Henderson, N. C.      |
| Wake                                    | Dr. Isa C. Grant              | Raleigh, N. C.        |
| Warren                                  |                               | Warrenton, N. C.      |
| Wayne                                   | Dr. Joe A. Bain               | Goldsboro, N. C.      |
| Wilkes                                  | Dr. A. J. Holton              | Wilkesboro, N. C.     |
| Wilson                                  | Dr. Joseph Campbell           | Wilson, N. C.         |
| Charlotte, City of                      | Dr. Maurice Kamp              | Charlotte, N. C.      |
| Rocky Mount, City of                    | Dr. J. S. Chamblee            | Rocky Mount, N. C.    |



NORTH CAROLINA  
STATE BOARD OF HEALTH  
—  
RALEIGH

J W R NORTON, M D, MPH  
STATE HEALTH DIRECTOR  
AND  
SECRETARY-TREASURER

JACOB KOOMEN, JR., M D, MPH  
ASSISTANT STATE HEALTH DIRECTOR

December 1, 1962

MEMBERS

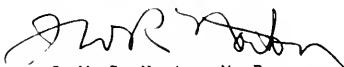
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|--------------------------------|---------------|
| CHARLES R. BUGG, M D, PRES     | RALEIGH       |
| JOHN R. BENDER, M D, VICE-PRES | WINSTON-SALEM |
| BEN W. DAWSEY, D V M           | GASTONIA      |
| LENOK D. BAKER, M D            | DURHAM        |
| ROGER W. MORRISON, M D         | ASHEVILLE     |
| JASPER C. JACKSON, PH G        | LUMBERTON     |
| OSCAR S. GOODWIN, M D          | APEX          |
| GLENN L. HOOVER, D D S         | DUNN          |
| D T REDFEARN                   | WAGESSBRO     |

The Honorable Terry Sanford  
Governor of North Carolina  
The State Capitol  
Raleigh, North Carolina

Dear Governor Sanford:

Pursuant to the provisions of Chapter 130, Article II, Paragraph 12, General Statutes of North Carolina, I herewith submit to you, and through you, to the General Assembly of North Carolina, the Biennial Report of the North Carolina State Board of Health for the fiscal years of July 1, 1960 - June 30, 1962.

Respectfully submitted,



J. W. R. Norton, M. D.  
Secretary and State Health Director

n/e

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# **REPORT OF THE SECRETARY-TREASURER AND STATE HEALTH DIRECTOR**

**July 1, 1960-June 30, 1962**

**Abridged report of the activities of the State  
Board of Health as recorded in the Minutes:**

**September 6, 1960.** There was a special called meeting of the North Carolina State Board of Health held Tuesday, September 6, 1960, 12:00 noon—1:35 p.m., in the Cooper Memorial Health Building,—President Charles R. Bugg, M. D., presiding.

Attending: Dr. Charles R. Bugg; Dr. Lenox D. Baker; Dr. Z. L. Edwards; Dr. Ben W. Dawsey and Mr. Jasper C. Jackson.

On motion of Mr. Jackson, seconded by Dr. Edwards, the minutes of the Board meeting held May 11, 1960, were approved as circulated.

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, presented a request for the extension of the boundary lines of the Royal Oaks Sanitary District, Cabarrus County, North Carolina. He stated that all documents and transactions had been examined by his Division and also by the Attorney General's Office and found to be in compliance with the law. Mr. Jarrett recommended that the Board consider favorably the approval of this annexation. The matter was discussed and upon motion of Dr. Baker, seconded by Dr. Dawsey, the **RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH EXTENDING THE BOUNDARY LINES OF THE ROYAL OAKS SANITARY DISTRICT IN CABARRUS COUNTY**, was unanimously approved.

Mr. Jarrett also presented a request for the creation of the proposed Rockland Sanitary District in Cabarrus County, North Carolina. He stated that the transactions and documents pertaining to the creation of the proposed Sanitary District had been examined and checked by his Division, and discussed with a representative of the Attorney General's Office, and were found to be in accordance with requirements of the General Statutes. Mr. Jarrett recommended favorable action by the Board. On motion of Dr. Baker, seconded by Dr. Dawsey, the **RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH CREATING THE ROCKLAND SANITARY DISTRICT IN CABARRUS COUNTY**, was approved.

President Bugg asked Secretary Norton to present and give a brief statement relative to the budget for the biennium 1961-'63. He explained that the "A" Budget was a continuation of services at the present level. The "B" Budget is for new services or expansion of existing services. The "C" Budget is for capital improvements. We are not making any requests under the "C" Budget since the Board of Public Buildings and Grounds has charge of State Buildings.

Dr. Norton also stated that the members of the Commission on Reorganization of State Government is considering where the Mental Health Authority can serve best.

At this point, Dr. Norton presented Dr. Jacob Koomen, Jr., Assistant Director of the Division of Epidemiology, and Mr. Charles L. Harper, Director, Administrative Services, and requested Dr. Koomen to present to the Board the purpose and need for the "B" Budget for the biennium 1961-'63 to be presented by priorities to the Advisory Budget Commission, and Mr. Harper to present the requested amounts.

Dr. Koomen stated that 20 priority categories had been set up in accordance with the relative needs and costs of public health in North Carolina, and gave a brief statement of purposes and reasons for each request. Mr. Harper followed each priority program discussion with a statement relative to details of personnel and costs.

In discussing the Department's "B" Budget, the Board considered the request of the Asheville Orthopedic Hospital that \$25,000 be added in the Board's "B" Budget for the use of the Hospital in addition to the \$50,000 tentatively approved in the "A" Budget at the request of the Asheville Orthopedic Hospital. After discussion, it was the consensus of the Board members present that the \$25,000 should be recommended to the Advisory Budget Commission, and that the recommendation should also be made that the entire sum appropriated henceforth to the State Board of Health specifically for the Asheville Orthopedic Hospital be removed from the agency's appropriation and be made a direct appropriation to the Asheville Orthopedic Hospital. A motion to this effect was made by Dr. Dawsey, seconded by Mr. Jackson, and carried.

On behalf of the Board, Dr. Baker and President Bugg thanked Dr. Koomen and Mr. Harper for their constructive and informative presentation of the Budget.

Dr. Baker moved that Dr. Norton be instructed to place a portrait of himself in some appropriate place in the Health Building. Motion seconded by Mr. Jackson, and carried.

The Board recommended that Secretary Newton and Dr. Edwin Preston be instructed to draft a resolution of respect for Dr. Earl W. Brian, who passed away August 1, 1960, for presentation at the next Board meeting.

The meeting adjourned at 1:35 p.m., and members proceeded to Room 351, Agriculture Building Annex, for the Hearing before the Advisory Budget Commission.

**October 6, 1960.** The quarterly meeting of the North Carolina State Board of Health was held Thursday, October 6, 1960, 10:30 a.m.-12:30 p.m., in the Board Room of the Cooper Memorial Health Building,—President Charles R. Bugg, M. D., presiding.

Attending: Dr. Charles R. Bugg; Dr. John R. Bender; Dr. Z. L. Edwards; Mr. Jasper C. Jackson; Dr. Ben W. Dawsey; Dr. Oscar S. Goodwin.

Dr. Oscar Sexton Goodwin of Apex, North Carolina, newly elected member of the State Board of Health, was present to take the Oath of Office. Before the Oath of Office was administered, Dr. Bugg said he would like to make an official statement concerning his good friend, Dr. Oscar Goodwin. He said, "Personally, and I am sure I am speaking for the Board, I

am greatly pleased that Dr. Goodwin has been elected by the Medical Society of the State of North Carolina. He is going to make us a very valuable member. He has been practicing medicine for many years right down at the ground roots."

Associate Justice Wm. H. Bobbitt of the Supreme Court of North Carolina, administered the Oath of Office to Dr. Goodwin, to fill the unexpired term of Dr. Earl W. Brian, deceased, the term expiring in 1963. Dr. Goodwin was elected to the vacancy by the Executive Council of the Medical Society of the State of North Carolina on October 2, 1960.

The meeting was called to order by President Bugg. On motion of Mr. Jackson, seconded by Dr. Dawsey, the minutes of the Board meeting held on September 6, 1960, were approved as circulated to members.

In discussing the request in the "B" Budget for additional funds to county health departments, Dr. Z. L. Edwards asked for information on the plan or formula to be used in allocating these funds if they are made available. Secretary Norton answered that up to this time the General Assembly has referred the decision of allocation formulas to the State Board of Health.

Secretary Norton reported the addition to our staff of Dr. Ursula M. Anderson to succeed Dr. Charles F. Williams, as Pediatric Consultant, in the Personal Health Division. In addition to the duties of Pediatric Consultant, Dr. Anderson is also very much interested in school health work, and will serve as the Board's School Health Co-ordinator.

Also, in discussing changes in the Central organization, Dr. Norton mentioned that the Nursing Section which is now in the Local Health Division desires a change in status, preferably to become a separate Division. This question is under consideration but no decision has as yet been made as to whether or not this would be the best arrangement. This matter was brought to the attention of the State Board as information.

Dr. Bugg called on Dr. Edwin S. Preston, Public Relations Officer, to read a previously distributed "Resolution of Appreciation and Respect" in tribute to the late Dr. Earl W. Brian of Raleigh, who died on August 1, 1960. President Bugg moved that the "Resolution" be adopted by the Board, all standing in silent tribute for a moment. The "Resolution of Appreciation and Respect" follows:

#### RESOLUTION OF APPRECIATION AND RESPECT

Earl W. Brian, M. D.

"WHEREAS, the death of Earl W. Brian, Raleigh physician and a member of the State Board of Health from July 15, 1958 to August 1, 1960, has brought profound sorrow to his multitude of friends and associates, and

"WHEREAS, the State Board in recognition of his influence and invaluable service wishing to express its sense of personal loss in his passing and its grateful appreciation of his many virtues, does hereby set forth this formal resolution of respect.

"A native of Arkansas, Earl W. Brian received his medical degree at Duke University in 1934 and practiced medicine in Raleigh beginning in 1939. In Raleigh he plunged into the professional and civic life of the city and became active as a member of the Edenton Street Methodist Church.

"Elected to membership on the State Board of Health in 1958 by action of the Medical Society of the State of North Carolina, he brought to the State Board a wealth of training and experience in medical care, years of unselfish community services—civic, church and preventive medicine, and above all a devoted motivation and gentleness of spirit in his every word and action. In his work on the State Board he showed the same wisdom and conscientious devotion to duty that he demonstrated in his private life. His influence will be projected through each of his co-workers in the State Board of Health for a long time to come.

"His deep interest in his fellow man and his acute sense of duty were combined with his innate ability in a way that brought him into places of principal leadership in many phases of the community's life—in the Wake County Medical Society, the Raleigh Kiwanis Club, the Executive Club of Raleigh, the United Fund of Raleigh, the Salvation Army, the Occoneechee Boy Scout Council, the Wake County Cancer Society, the Heart Association, the Wake County Tuberculosis Association and in other organizations touching helpfully the health and welfare of those about him.

"Ever the epitome of a gentleman, an ardent champion of the manly art of chivalric demeanor, he moved among us with a quiet voice, a gentle countenance and a noble bearing that reflected and bespoke the majestic character from which they emanated. To know him was not only to love him but also to join hands with him in living for others.

"BE IT THEREFORE, RESOLVED, that this expression of respect and appreciation be formally enacted by the State Board of Health and spread upon its official minutes, and that a copy be forwarded to the family of our departed friend to convey, though inadequately, the heartfelt sympathy of the members of the State Board, and

"BE IT FURTHER RESOLVED, that copies be also sent to the Editor, North Carolina Medical Journal, the Editor, Journal of the American Medical Association, the Editor, Journal of the American Public Health Association, the Secretary, Medical Society of the State of North Carolina and to the Secretary, North Carolina Public Health Association.

"This 6th day of October, 1960."

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, presented proposed Rules and Regulations Providing for the Protection of Public Water Supplies. This material was distributed to members prior to the meeting for information and study. Mr. Jarrett explained briefly that these regulations had been rewritten and clarified in accordance with the revised Public Health Laws as passed by the General Assembly in 1957 and 1959, and that much of the material contained in the revision is covered by existing regulations but has been revised to bring it up-to-date. Mr. Jarrett, therefore, recommended that the State Board approve the adoption of the revised rules and regulations for the protection of public water supplies. Dr. Dawsey moved that the proposed revisions to RULES AND REGULATIONS PROVIDING FOR THE PROTECTION OF PUBLIC WATER SUPPLIES, be adopted. Motion seconded by Dr. Edwards, and unanimously carried.

Mr. Jarrett also discussed a request from the City of Greensboro, N. C., asking the State Board of Health to grant permission to the City to permit controlled fishing from boats owned and controlled by the City on Lake Brandt and also to permit sailboating with privately-owned sailboats on the Lake from April 1 to October 31. No fishing will be allowed within 200 yards of the water intake and no boats will be allowed within this area except by Public Works employees on their assigned duties. Mr.

Jarrett stated that due to strict regulations controlling fishing and boating he felt that no unfavorable effects would be experienced in the quality of the water and that it would be safe from a public health standpoint. On motion by Mr. Jackson, seconded by Dr. Goodwin, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH AUTHORIZING THE CITY OF GREENSBORO, NORTH CAROLINA, TO PERMIT CONTROLLED FISHING AND HUNTING ON LAKE BRANDT, THE CITY'S PRIMARY WATER SUPPLY LAKE, FROM BOATS OWNED AND CONTROLLED BY THE CITY AND ALSO TO PERMIT SAILBOATING WITH PRIVATELY-OWNED SAILBOATS ON THE LAKE FROM APRIL 1 TO OCTOBER 31, ACCORDING TO THE RULES AND REGULATIONS ADOPTED BY THE CITY COUNCIL ON AUGUST 1, 1960, was carried.

Mr. Jarrett also presented a similar request as the above from the City of Greensboro to the State Board of Health to permit privately-owned power boats on *Lake Higgins*, the City's secondary municipal water supply lake downstream from Carlson Dairy Road bridge, and also to allow fishing from boats only, hunting from blinds and sailboating from April 1 to October 31. He stated that this request also had been thoroughly investigated by his Division, and in view of all the information, he recommended approval by the Board. On motion of Mr. Jackson, seconded by Dr. Goodwin, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH AUTHORIZING THE CITY OF GREENSBORO, N. C., TO PERMIT PRIVATELY-OWNED POWER BOATS ON LAKE HIGGINS, THE CITY'S SECONDARY MUNICIPAL WATER SUPPLY LAKE, DOWNSTREAM FROM THE CARLSON DAIRY ROAD BRIDGE, CONTROLLED FISHING FROM BOATS ONLY, CONTROLLED HUNTING FROM BLINDS, AND SAILBOATING FROM APRIL 1 TO OCTOBER 31, ACCORDING TO THE RULES AND REGULATIONS CONCERNING RECREATIONAL ACTIVITIES ON LAKE HIGGINS ADOPTED BY THE CITY COUNCIL ON AUGUST 1, 1960, was carried.

Mr. Jarrett then discussed a request from the City of High Point for permission from the State Board of Health to permit privately-owned boats on *City Lake* for fishing purposes and controlled bank fishing at designated areas. He stated that documents and other pertinent data had been examined by his office, and in his opinion, provided the rules and regulations pertaining to fishing, boating, etc., on City Lake were carried out he could see no damaging effects to the quality of raw water, and recommended that permission of the Board be granted. On motion of Dr. Bender, seconded by Dr. Dawsey, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH AUTHORIZING THE CITY OF HIGH POINT, N. C., TO PERMIT PRIVATELY-OWNED BOATS FOR FISHING PURPOSES ON CITY LAKE, THE MUNICIPAL WATER SUPPLY LAKE, AND FISHING FROM THE BANK IN THE LAKE AT DESIGNATED AREAS, was carried.

At this point, there was some discussion on fish and animal "rendering plants" and President Bugg asked that Mr. Jarrett report on the plant at Southport at the next Board meeting.

Dr. Jacob Koomen, Jr., Assitant Director of Epidemiology, was asked to discuss the possible need for regulations on tattooing. He stated that from time to time the question of the public health aspects of tattooing has come to the fore. This spring Dr. Norton was requested to look into this matter by officials of Fort Bragg, with the idea of gathering information especially as affecting areas around military establishments. No state, with the exception of Hawaii, so far as could be determined, has any statewide regulations about this. Newport News has a licensing system with a licensing fee of \$600.00 Some coastal cities, New York, etc., have specific requirements such as certain standards of sanitation. In the main, they demand a waiting room and operating suite and sanitary techniques. He quoted the North Carolina Law, which states that it is unlawful for any person or persons to tattoo any person under 21 years of age. This is generally in keeping with all states except Hawaii. This matter was brought up for information only and possible future action by the Board.

Dr. Lynn G. Maddry, Acting Director of the Laboratory Division, was present and discussed further consideration of Certification of Industry Milk Laboratories which had been circulated to Board members for study. Dr. Maddry stated that since the laboratory certification program was started in 1953, extensive changes have been made in the milk industry. Changes have been made in the way milk is delivered from the producers to the processors since it is being delivered now by tank truck, and all milk is mixed as it comes in. This necessitates collection of an official sample to precede the truck, eight samples per year, which works a hardship on local health departments. In the past, the Public Health Service has allowed local health departments to use results obtained from industry laboratories as a part of their official grading samples. This summer the Public Health Service ruled that results of analyses from industry laboratories could not be used unless the industry laboratory was certified as examining milk in accordance with Standard Methods. The 1953 policy prevented the State Board of Health from certifying industry milk laboratories. We have had a number of requests from local health departments to certify industry laboratories. We could go ahead and certify these industry laboratories if the first two paragraphs of the policy of 1953 were modified. When the policy was adopted before, the milk was moving to the processor by cans and the required number of samples could be collected without moving from the plant. Dr. Maddry read the first two paragraphs of the 1953 policy and the proposed amendments to these two paragraphs. Dr. Dawsey moved that the regulation proposed in the first paragraph be accepted, seconded by Dr. Goodwin. Mr. Jackson moved that the proposed amendment to the second paragraph be accepted, and Dr. Dawsey seconded. Both paragraph revisions were passed unanimously.

As amended, paragraph #1 and #2 of the September 1953, general policies would read as follows:

"That only laboratories operated by local health departments or by cities, counties or other state agencies be considered for certification, except that industry milk laboratories be certified upon the request of local health departments only."

"That the building housing the laboratory applying for certifica-

tion be owned or operated by a county, city or the State of North Carolina, except that milk industry laboratories, approved at the request of local health departments, may be located on private property."

Dr. Preston presented and discussed legislation on medical assistance for persons 65 and over. The 1960 amendments to the Social Security Act provide, among other things, available Federal funds for states desiring to make available medical care for either or both of the following two groups of persons over 65 years of age: —

1. Recipients of old age assistance.
2. Persons who are not recipients of old age assistance but whose income and resources are insufficient to meet all the costs of certain medical care.

Each state must work out a plan acceptable to the Secretary of the Department of Health, Education and Welfare. This plan must designate one agency or create a single agency to supervise the medical care included. We are advised that present legislation in North Carolina is not adequate to make these programs available in this State. The Executive Council of the Medical Society of the State of North Carolina has passed a resolution and forwarded it to Governor Hodges proffering the cooperation of the Committee on Chronic Illness with whatever agency and officials may be designated to formulate plans and policies concerning the medical assistance provisions of these amendments. Dr. Ellen Winston, Commissioner of the State Board of Public Welfare, has indicated that that Board is studying the amendments and conferring with Washington officials of the Department of Health, Education and Welfare to determine appropriate opportunities and responsibilities of that Board with regard to the old age assistance program and the pooled fund for hospitalization.

Following discussion, Dr. Dawsey moved, seconded by Dr. Edwards, that the State Board of Health ask Dr. Norton and Dr. Bender to represent the State Board in conference with top officials of the Department of Health, Education and Welfare so as to ascertain opportunities and responsibilities which might properly be of concern to this Board and to recommend such action as the facts and their judgment would indicate.

Secretary Norton discussed representation to the North Carolina Health Council from the State Board of Health of two members to represent the Board. On motion of Dr. Dawsey, seconded by Mr. Jackson, Dr. Jacob Koomen and Mrs. Lula Belle Rich, were unanimously elected as voting delegates to represent the Board of Health at meetings of the North Carolina Health Council.

Dr. Norton gave a brief verbal report on poliomyelitis cases. As information, President Bugg reported that Dr. S. F. Ravenel, Chairman of the Committee on Salk Vaccine for the Medical Society of the State of North Carolina, has requested from the Advisory Budget Commission, a renewal of the \$216,000.00 appropriation made available for purchase of polio vaccine for the present biennium, that the Medical Society Executive Council has approved his committee action and he recommended

Board and staff support so that our program should continue on exactly the same basis for the next two years.

Secretary Norton also announced that the Medical Society's Committee on School Health is sponsoring a State Conference on School Health, Saturday, October 22, at the Sir Walter Hotel and urged all who could to attend. He also announced the Annual Conference of Local Health Directors, December 5 and 6, 1960, Sir Walter Hotel, Raleigh, and extended an invitation to the Board members to attend. Adjournment 12:20 p.m.

December 2, 1960. There was a special called meeting of the North Carolina State Board of Health held Friday, December 2, 1960, 1:30 p.m. - 3:30 p.m., in the Board Room of the Cooper Memorial Health Building, President Charles R. Bugg, presiding.

Attending: Dr. Charles R. Bugg; Dr. John R. Bender; Dr. Z. L. Edwards; Dr. Lenox D. Baker; Mr. Jasper C. Jackson; Dr. Ben W. Dawsey; Dr. Oscar S. Goodwin.

The meeting was called to order by President Bugg. On motion of Mr. Jasper C. Jackson, seconded by Dr. Ben W. Dawsey, the minutes of the October 6, 1960, Board meeting were approved as circulated by the Secretary.

Commissioner of Agriculture, L. Y. Ballentine, appeared before the Board and discussed informally the increasing use of weight-reducing products, either singly or in combination with other foods, including milk. The Board of Agriculture is placed in a difficult position when their use is accepted under the Pure Food and Drug Laws, and must be reconciled with the definitions and standards for milk. As an example, reference was made to a request that had been received, or was expected, for the addition to milk of a product similar to Metrecal. A question was also raised as to the public health justification for the fortification of milk and other foods with various minerals and vitamins. Commissioner Ballentine stated that he was quite concerned regarding this subject and would like to have the views and recommendations of the State Board of Health. The Board took the request under consideration but no action was requested or taken at this time.

At this time President Bugg presented a plaque (An Appreciation and A Resolution) to Dr. John H. Hamilton, who retired as Director of the Laboratory of Hygiene and Assistant State Health Director, April 30, 1960. Dr. Hamilton accepted the plaque and expressed his appreciation and thanks to the Board.

Mr. John Andrews, Chief of the Sanitation Section, Sanitary Engineering Division, presented a request from the North Carolina State Board of Cosmetic Arts, to amend their regulations as previously adopted in 1959, to include their system of scoring as part of the regulations. Mr. Andrews explained these changes and recommended the approval of the amendments to the regulations. On motion of Dr. Dawsey, seconded by Mr. Jackson, the revisions to be incorporated in the rules and regulations of the State Board of Cosmetic Arts, were passed.

Mr. W. S. McKimmon of the Engineering Section, presented a resolution for the dissolution of a portion of the Dare Beaches Sanitary District, Dare County, North Carolina. He stated that in 1949 the State Board of Health passed a resolution creating a proposed sanitary district to be known as the Dare Beaches Sanitary District in Dare County for the purpose of securing a good community water supply in that area. Since the district was created they have had five different bond elections and every one has failed due to the fact that the people living in this particular area to be excluded have voted against the bond issue, and hence the water system has not been installed at the present time. He stated that the Sanitary District Board are of the opinion that if the proposed area is dissolved that they will be able to get a bond election passed and will then have finances to install a badly needed water system in the Sanitary District. He further stated that a petition was circulated in the proposed area to be dissolved and was signed by fifty-one per cent (51%) or more of the resident freeholders. The petition was then presented to the Board of Commissioners of the Dare Beaches Sanitary District with the request that that portion of the Sanitary District be dissolved. The Sanitary District Board of Commissioners determined that the Sanitary District had no indebtedness against it, as required by law, and adopted a resolution approving the dissolution of that portion of the Sanitary District as requested and that the boundaries of the remaining area be redefined. The petition was then presented to the Board of Commissioners of Dare County with the request that they approve the petition and call an election so that all of the people in the newly proposed and defined District could vote concerning the dissolution. The Board of County Commissioners approved the petition and duly called an election to be held within the District September 10, 1960. The said election was held at the said time and the people voted in favor of the dissolution by a large majority.

The Board of Commissioners of Dare County then had the vote in the election certified by the proper authorities and adopted a resolution certifying the election and requesting the North Carolina State Board of Health to approve the dissolution of that portion of the Dare Beaches Sanitary District as described in the petition and to redefine the remaining area in the Sanitary District.

Mr. McKimmon pointed out that the Sanitary Engineering Division had examined and reviewed in detail the procedure carried out for the dissolution of that portion of the District as described in the petition and had discussed in detail the legal aspects of the procedure with Mr. Harry McGalliard, Assistant Attorney General, and that Mr. McGalliard stated that in his opinion the procedure was carried out according to Section 130-150, General Statutes of North Carolina, and that all documents were in order. He then requested the State Board of Health to consider with favor and approve the dissolution of that portion of the Dare Beaches Sanitary District as described in the petition and redefine the boundaries of the remaining area in the District.

On motion of Mr. Jackson, seconded by Dr. Dawsey, the following resolution was adopted by the State Board of Health:—RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH DIS-

SOLVING A PORTION OF THE AREA OF THE DARE BEACHES SANITARY DISTRICT, DARE COUNTY, NORTH CAROLINA, AS DESCRIBED IN THE ORIGINAL PETITION AND IN THIS RESOLUTION AND ESTABLISHING THE NEW BOUNDARIES OF THE DARE BEACHES SANITARY DISTRICT.

Dr. Edwin S. Preston, Public Relations Officer, suggested that a congratulatory telegram be sent to Governor Abraham Ribicoff, Hartford, Connecticut, the newly appointed Secretary of Health, Education and Welfare by President-Elect Kennedy. On motion of Mr. Jackson, seconded by Dr. Edwards, the following message was dispatched to Governor Ribicoff by the Board:

"The North Carolina State Board of Health extends felicitations to you as the choice of President-Elect Kennedy for Secretary of Health, Education and Welfare. We feel that your demonstrated understanding in these areas and your outstanding state administration in Connecticut make this choice a happy one for the Nation.

Signed: Charles R. Bugg, M. D., President  
J. W. R. Norton, M. D., State Health Director"

At the request of President Bugg, Dr. Amos Johnson, President of the Medical Society of the State of North Carolina, presented to the State Board, as information, facts concerning the Medical Assistance for the Aged provisions of the August 1959 amendments to the Social Security Act (PL86-779) passed by Congress. Dr. Johnson gave a report on the November 27 meeting in Washington sponsored by the American Medical Association to consider this program. He also voiced the viewpoints expressed in a recent meeting of the Executive Council of the Medical Society of the State of North Carolina. This law provides federal appropriations to be matched by the state on approximately a four federal dollars to one state and one local dollar basis. Dr. Johnson stated that the Medical Society recommends that this program be decentralized and kept as far away as possible from politics, that fiscal management be handled through the Blue Cross, Blue Shield companies who already have the facilities and could administer it at a much lower cost than a state agency could, and that a state committee be appointed as a part of the North Carolina plan to work out the ground rules and regulations. As to eligibility, the Medical Society recommends that the program be limited to persons having less than approximately \$1,000.00 per year income, with not more than \$1,000.00 in liquid assets for a single person, or \$2,000.00 for a couple, and not over \$7,500.00 in property.

Dr. Baker made a motion to the effect that this item was discussed and it was the consensus of the Board that the purpose of this Board is for education and for preventive medicine and not for the private practice of treatment medicine. We, as a State Board, therefore, should take no action since such laws are out of our domain, and any time our services are needed, the President of the Board or the State Health Director, if requested, will meet with any group to consider any suggestion related to this matter. Dr. Edwards seconded the motion, and carried.

Mr. Marshall Staton of the Sanitary Engineering Division, reported upon an investigation of odors emanating from fish processing plants near the bridge on Highway #40 near Youpon Beach in Brunswick County. He described the process, the principal sources of odor, and possible remedial measures. Since there are no State laws on air pollution at present, there appears to be no way of requiring the plants to install odor-control devices; and, because of economic conditions in the industry it is likely that the plants may shortly discontinue operations. However, Mr. Staton stated that he would investigate the possibility of adapting a relatively inexpensive chemical odor-control treatment that has been used in some sewage treatment plants. This report was presented to the Board for its information as requested, and no official action was taken.

Dr. Dawsey raised a question regarding the "Rules and Regulations Providing Minimum Sanitation Requirements for the Dispensing of Foods and Beverages Through Vending Machines," which had been adopted by the Board on May 11, 1960, to become effective January 1, 1961.

Dr. Dawsey had received a letter from Dr. B. M. Drake, Local Health Director of Gaston County, who felt that the regulations do not give sufficient authority to the Local Health Director, and that the provision for permit revocation is too cumbersome.

In discussing this matter, Mr. Andrews pointed out that the regulations call for permits to be issued by the State Health Director, upon the recommendation of the Local Health Director, and to be revoked by the State Health Director, upon the recommendation of the Local Health Director. Also, the vending regulations, unlike some of the older regulations, provide an opportunity for a hearing before revocation of permit. Mr. Andrews stated that it is now quite customary to include such a provision for a hearing in regulations which authorize an agency to revoke a person's license to engage in a business which may affect the public Health. He also stated that the fixing of responsibility for issuing and revoking permits upon the State Health Director was included in the regulations because many vendor companies operate and service machines in several counties in addition to the county in which the commissary is located. For this reason the vending machine industry representatives, who had requested the adoption of regulations, felt that there should be State Health Director review of the revocation of a permit for an operation involving several counties.

Mr. Andrews expressed the opinion that it is difficult to know, before the regulations are tried out, whether or not changes are needed, but commented that it is to be expected that some changes will be found necessary after the regulations have been tried out, and that appropriate changes can be submitted for the Board's consideration at a later date. It was decided that no action be taken at this time. Meeting adjourned at 3:50 p.m.

February 14, 1961. The quarterly meeting of the North Carolina State Board of Health was held Tuesday, February 14, 1961, 10:00 a.m. - 1:00 p.m., in the Board Room of the Cooper Memorial Health Building, President Charles R. Bugg, M. D., presiding.

Prior to the meeting, Mrs. W. Kerr Scott took the Oath of Office in Governor Terry Sanford's office, administered by Secretary of State, Thad Eure. Mrs. Scott was appointed by Governor Sanford to the vacancy of the unexpired term of Mrs. J. E. Latta, resigned, the term expiring May, 1961—with the additional announcement of his intention for Mrs. Scott to serve for a four-year term then.

Following the oath-taking ceremony in the Governor's office, the Board went into regular session in the Board Room. Mrs. Scott was introduced and greeted as a new member of the Board.

Attending: Dr. Charles R. Bugg; Dr. John R. Bender; Dr. Z. L. Edwards; Dr. Lenox D. Baker; Mr. Jasper C. Jackson; Dr. Ben W. Dawsey; Dr. Oscar S. Goodwin; Mrs. W. Kerr Scott.

On motion of Dr. Lenox D. Baker, seconded by Dr. Oscar S. Goodwin, the minutes of the December 2, 1960, meeting were approved as circulated by the Secretary.

Mr. W. S. McKimmon, Sanitary Engineering Division, presented a request for the creation of a proposed Junaluska Sanitary District in Haywood County, North Carolina. He stated that the petition had been signed by at least 51% of the resident freeholders within the proposed sanitary district,—that a resolution had been adopted by the Board of County Commissioners approving the creation and requesting the State Board to create the district, and that the various documents and transactions had been examined and approved by the Sanitary Engineering Division; also that the transactions and documents pertaining to the proposed sanitary district had been discussed with the Assistant Attorney General, who expressed the opinion the procedure was in accordance with Chapter 130, Article 12 of the General Statutes of North Carolina,—and therefore, the Sanitary Engineering Division recommended the establishment of the creation of the Junaluska Sanitary District as requested, be approved. Upon motion of Dr. Baker, seconded by Dr. Goodwin, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH CREATING THE JUNALUSKA SANITARY DISTRICT LOCATED IN HAYWOOD COUNTY, NORTH CAROLINA, was unanimously carried.

Mr. Frank Taylor of Goldsboro, N. C., Attorney for the North Carolina Meat Packers Association, was present and discussed proposed legislation for a compulsory State-wide meat and poultry inspection program to be presented to the General Assembly and sponsored by the North Carolina Agriculture Department. The purpose, objectives and need for this program were discussed by Dr. Martin P. Hines, Chief of the Public Health Veterinary Section, and Mr. Taylor.

Mr. Taylor stated that as soon as the proposed bill is drafted the State Board of Health will receive a copy and would have the opportunity of making suggestions for change in the proposed law. He solicited the cooperation and approval of the proposal, in principle, by the State Board of Health. Following the discussion, Dr. Baker moved that the Board approve and support, in principle, the plan for mandatory inspection of

meat and poultry as presented by Mr. Taylor. Motion seconded by Dr. Dawsey, and carried.

Mr. Charles L. Harper, Director of Administrative Services, and Dr. Jacob Koomen, Assistant Director, Epidemiology Division, made a report on the recommendations of the budget of the Advisory Budget Commission concerning the State Board of Health's appropriation for the biennium 1961-1963.

A brief statement of explanation of the "A" and "B" Budget was given. The "A" Budget represents the amount required to continue the program at the same level as in the current biennium, and the "B" Budget represents the amount required to develop new programs needed or expand as needed, those which are already in existence.

Dr. Koomen presented a brief summary of the items in the "B" Budget for which funds were requested and Mr. Harper followed giving the amounts represented by the request in each program.

Dr. Norton advised the Board that he had reviewed the Advisory Budget Commission's recommendations with the Division Directors and Section Chiefs but had not attempted to make specific recommendations as to which of the requested items should be appealed. He also presented the items each Division Director and Section Chief indicated should be appealed and also those which because of subsequent development, the program directors involved did not feel that an appeal was indicated. Dr. Norton asked for guidance from the Board as to the approach it wanted taken in connection with an appeal to the Joint Appropriations Committee. After discussion, on motion of Dr. Baker, seconded by Mr. Jackson and Dr. Goodwin, Dr. Norton was instructed to counsel with the staff and then to appeal to the Joint Appropriations Committee for such additional funds as are needed in the programs of the State Board of Health beyond the recommendations of the Advisory Budget Commission. Motion carried.

Mr. Harper reported that the appropriation for the biennium 1959-1961 for the State Board of Health did not include funds for the purchase of polio vaccine,—the cost of such vaccine being paid for from the Contingency and Emergency Fund in accordance with provisions of the compulsory poliomyelitis immunization law. He stated that the same provisions will apply to the 1961-1963 biennium budget.

Dr. W. L. Wilson, Chief, Occupational Health Section, was present and discussed voluntary registration of radiation sources. He presented a proposed form and instructions to accompany the form which, if approved by the State Board of Health, will be distributed to all professional people in the State so that they might voluntarily register X-ray equipment, isotopes, including radium, and other ionizing radiation in accordance with the letter sent to Board members on January 4, 1961. Dr. Baker moved, Dr. Dawsey seconded, and the Board approved unanimously the distribution of the proposed registration forms for voluntary registration of radiation sources.

For information, Secretary Norton distributed to the Board members a copy of Senate Bill #13, entitled "BILL TO BE ENTITLED AN ACT TO AMEND CERTAIN SECTIONS OF THE GENERAL STATUTES TO

PROVIDE FOR THE LICENSING OF NURSING HOMES BY THE STATE BOARD OF HEALTH RATHER THAN BY THE NORTH CAROLINA MEDICAL CARE COMMISSION AND THE STATE BOARD OF PUBLIC WELFARE" as introduced by Senator Cook at the suggestion of the present State Administration. The proposal by Senator Cook is that the licensing of Nursing and Convalescent Homes be transferred to the State Board of Health rather than the continuance of licensing by the Medical Care Commission and the State Board of Public Welfare. Dr. Norton stated that this transfer had been discussed from time to time, and that in principle, it is good, but nothing had been done prior to the introduction of this bill. No action needed.

Dr. Jacob Koomen discussed the present status of communicable disease regulations. He pointed out that the North Carolina regulations were last revised in toto in 1944 and additional regulations have been written from time to time to keep in line with modern communicable disease practice. The present discussion is related to the fact that Dr. Bugg received a letter from one of the State's pediatricians pointing out that the regulations for control of streptococcus infections needs further modernization. In order to modernize our regulations they may be either re-written, or, as determined in consultation with Mr. Roddey Ligon of the Institute of Government, the regulations may be taken by reference from the APHA Manual "CONTROL OF COMMUNICABLE DISEASE IN MAN." The latter has much to recommend it since the Manual is revised regularly every five years. Dr. Baker moved, seconded by Mr. Jackson, that the Board modernize the Communicable Disease Regulations, Supplement No. I, Volume 60. Motion carried.

Dr. Charles B. Kendall, Chief, Crippled Children's Section, discussed a meeting of the Advisory Committee to that Section which is contemplated late in March and recommended that the following members be designated:

"The heads of departments of orthopedic surgery in the three schools—with Dr. J. Leonard Goldner acting for Dr. Baker during the latter's tenure of office on the State Board of Health.

|  |                                   |
|--|-----------------------------------|
| Dr. William Roberts .....                  | Orthopedics                       |
| Dr. Everett I. Bugg .....                  | Orthopedics                       |
| Dr. Stanley S. Atkins .....                | Orthopedics                       |
| Dr. Hugh Thompson .....                    | Orthopedics                       |
| Dr. Kenneth Pickrell .....                 | Plastic Surgery                   |
| Dr. Eben Alexander .....                   | Neuro Surgery                     |
| Dr. John Rhodes .....                      | Urology                           |
| Dr. Paul Sanger .....                      | Thoracic and Heart Surgery        |
| Dr. W. Elliot White (Ped.) .....           | Rheumatic Fever and Heart         |
| Dr. Roderick Ormandy .. (Speech pathology) | Speech and Hearing                |
| Dr. Melvin P. Hoot .....                   | (ENT, Greenville)                 |
| Dr. Angus McBryde .....                    | Pediatrics                        |
| Mr. Charles H. Warren .....                | Vocational Rehabilitation         |
| Mr. James Barnes .....                     | Medical Society of North Carolina |
| Mr. Joseph E. Barnes .....                 | Hospital Administrator"           |

Motion for approval was made by Dr. Baker, seconded by Dr. Bender, and passed.

Dr. Kendall also presented a proposal concerning the adoption by the Board of a program in support of convulsive seizures, a proposal which had previously been circulated to Board members. By common consent the Board authorized Dr. Kendall to proceed to formulate this plan for approval by the Children's Bureau with a view of implementation in the last quarter of the current fiscal year if funds are found at that time to be available for this purpose.

Dr. Lenox Baker made a motion that the present officers of the Board continue to serve until the first meeting after July 1, 1961. This was seconded by Mr. Jackson, and carried. Meeting adjourned 1:15 p.m.

May 10, 1961. The annual meeting of the North Carolina State Board of Health was held, as required by law, during the annual meeting of the Medical Society of the State of North Carolina, in the Sundial Room of the George Vanderbilt Hotel in Asheville, N. C., Wednesday, May 10, 1961, 8:30 a.m. to 9:30 a.m., Dr. Charles R. Bugg, President, presiding.

Attending: Dr. Charles R. Bugg; Dr. John R. Bender; Dr. Lenox D. Baker; Dr. Roger W. Morrison; Mr. Jasper C. Jackson; Dr. Ben W. Dawsey; Dr. Oscar S. Goodwin; Mrs. W. Kerr Scott.

On motion of Dr. Lenox D. Baker, seconded by Dr. Oscar S. Goodwin, the minutes of February 14, 1961, were approved as circulated by the Secretary.

Mr. R. F. Hill, District Engineer, Sanitary Engineering Division, presented a request for the creation of Charlotte College Community Sanitary District. He stated that the various documents and transactions had been examined and approved by the Sanitary Engineering Division and were found to be in accordance with the General Statutes of North Carolina, and therefore, the Sanitary Engineering Division recommends that the establishment of the Charlotte College Community Sanitary District as requested, be approved. Upon motion of Dr. Baker, seconded by Dr. Dawsey, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH CREATING THE CHARLOTTE COLLEGE COMMUNITY SANITARY DISTRICT LOCATED IN MECKLENBURG COUNTY, NORTH CAROLINA, was unanimously carried.

Mr. Hill also discussed a request for the creation of the Boger City Sanitary District. He stated that all documents and transactions had been thoroughly examined and investigated by the Sanitary Engineering Division, and found to be satisfactory, and that in view of this, the Sanitary Engineering Division recommends approval of the creation of the Boger City Sanitary District as requested. On motion of Dr. Goodwin, seconded by Mr. Jackson, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH CREATING THE BOGER CITY SANITARY DISTRICT LOCATED IN LINCOLN COUNTY, NORTH CAROLINA, was carried.

A request from the City of Wilson that they be granted permission to permit controlled fishing from boats and controlled fishing from designated

areas on the banks which are approved by representatives of the State Board of Health; and also permission to permit water skiing and boating on Winstead Mill Lake, the City's secondary or Class II reservoir, was brought to the Board's attention by Mr. Hill. He reported that the lake had been investigated by the Sanitary Engineering Division and they are of the opinion that controlled fishing, boating, and water skiing, if the controlling regulations are strictly enforced, will not adversely affect the quality of the raw water to the point of rendering it unsatisfactory for use as a public water supply and, therefore, approval by the Board was recommended. On motion of Dr. Baker, seconded by Dr. Bender, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH AUTHORIZING THE CITY OF WILSON, NORTH CAROLINA, TO PERMIT CONTROLLED FISHING AND OTHER RECREATIONAL ACTIVITIES ON AND AT WINSTEAD MILL LAKE, WILSON'S MUNICIPAL CLASS II LAKE, was carried.

Request of the City of Burlington, North Carolina, that they be granted permission to permit controlled fishing, boating, water skiing and picnicking on and at Burlington Lake, the City of Burlington's Class II water supply lake was then discussed. Mr. Hill stated that the Sanitary Engineering Division had investigated this request and is of the opinion that if the recreational activities are strictly enforced, that the quality of the water will not be adversely affected to a point where it would be rendered unfit for use as a public water supply and that the Board consider with favor the controlled recreational activities requested. On motion of Dr. Baker, seconded by Dr. Bender, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH AUTHORIZING THE CITY OF BURLINGTON, NORTH CAROLINA, TO PERMIT CONTROLLED FISHING AND OTHER CONTROLLED RECREATIONAL ACTIVITIES ON AND AT LAKE BURLINGTON, THE CITY OF BURLINGTON'S CLASS II WATER SUPPLY LAKE, was carried.

Mr. Hill then presented a request from the City of Durham, North Carolina, that they be granted permission to permit controlled fishing from boats and bank, boating, picnicking, archery and camping on and at Lake Michie, the City of Durham's Class I water supply lake. Mr. Hill stated that the Sanitary Engineering Division had thoroughly investigated this request and recommended approval by the Board. On motion of Dr. Baker, seconded by Dr. Bender, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH AUTHORIZING THE CITY OF DURHAM, NORTH CAROLINA, TO PERMIT CONTROLLED FISHING AND OTHER CONTROLLED RECREATIONAL ACTIVITIES ON AND AT LAKE MICHELLE, THE CITY OF DURHAM'S CLASS I WATER SUPPLY LAKE, was unanimously carried.

Dr. Bugg discussed a proposed letter he had drafted as President of the State Board of Health to Mr. D. S. Coltrane, Director of the Department of Administration, a copy of which was sent to Board Members, recommending a salary increment, effective July 1, 1961, from \$17,000 to \$20,000, for the State Health Director. On motion of Dr. Bender, seconded by Mr. Jackson, the recommendations of Dr. Bugg as contained in the letter proposed to be sent were approved.

Dr. D. F. Milam, medical director of the Nursing Home Section of the State Board of Health, outlined rules and regulations being proposed for the licensing of nursing homes by the State Board of Health. Licensing responsibility was transferred from the Medical Care Commission to the State Board of Health on March 17, 1961, by action of the 1961 General Assembly. Dr. Milam indicated that the rules and regulations being proposed at the present time would be a continuation of those in operation by the Medical Care Commission until further study may indicate needed changes.

Dr. Milam also gave the membership of a ten-member nursing home advisory council which would be particularly helpful in the transition adjustments, composed of the following:

A doctor of medicine licensed to practice in North Carolina and recommended by the Medical Society of the State of North Carolina.  
A doctor of dentistry licensed to practice in North Carolina and recommended by the North Carolina Dental Society.

A registered pharmacist licensed to practice in North Carolina and recommended by the North Carolina Pharmaceutical Association.

A registered nurse licensed to practice in North Carolina and recommended by the North Carolina State Nurses Association.

An administrator of a general hospital in North Carolina and recommended by the North Carolina Hospital Association.

The Commissioner of Welfare of the State of North Carolina or her duly appointed representative.

Two representatives of the licensed nursing homes of North Carolina and recommended by the North Carolina Association of Nursing Homes.

Two individuals representing the community and serving as representatives of the consumers of the services offered.

On motion of Mr. Jackson, seconded by Dr. Goodwin, the Temporary Rules and Regulations of Nursing Homes in North Carolina, and the membership of the Advisory Council, were approved.

Dr. W. L. Wilson, heading up the State Radiological Health program of the State Board of Health, presented facts concerning progress made in the State Radiological Health Program. Dr. Wilson set forth briefly the program required under the 1959 Act, the considerable achievements to-date made without any additional means having been provided, actions still necessary solely due to lack of sufficient means to implement properly the 1959 Act, and handling of serious radiological accidents or emergencies. He indicated that the North Carolina Act of 1959 sets forth not only certain specific responsibilities of the State Board of Health, but in addition other actions authorized but not required. The act also authorized the State Board of Health to "do any and all other acts deemed desirable in providing an effective protection program" to preserve the public health from ionizing radiation.

Upon Dr. Baker's motion, seconded by Dr. Dawsey, the Board supported the State Health Director's interpretation of further actions essential to protect the public health against dangerous ionizing radiation at the earliest practicable time; the Board directed the State Health Director to proceed with maximum speed to implement all desirable acts to protect public health and safety in accordance with the North Carolina Act of

1959, and to seek assistance required in order to obtain any necessary additional enabling legislation.

Dr. Bugg and Dr. Norton presented a proposed amendment to the recommended schedule of polio shots for the immunization of young children. This schedule has the approval of the Chairman of the Poliomyelitis Vaccine Committee of the Medical Society of the State of North Carolina and of Dr. Bugg, President of the State Board of Health. The Board approved a recommendation for a dose every other year after the four doses already recommended by the Board. On motion of Dr. Baker, seconded by Dr. Bender, this schedule was approved.

Dr. Fred T. Foard, Director of the Division of Epidemiology, presented as information, facts concerning the budget of the Venereal Disease Control Section. Funds for this work are provided 100 percent by the U. S. Public Health Service. The budget will remain the same as last year though the U. S. Public Health Service is assigning two additional venereal disease investigators to the State. Dr. Foard also gave a report on the 1960 quadruple rise in cases of infectious hepatitis and indicated that the experience in North Carolina is similar to that which is being experienced in other parts of the nation.

Dr. Norton reported to the Board, as information, the progress thus far of the Bill, S. B. 244, providing for compulsory meat inspection. This Bill is sponsored by the State Department of Agriculture and the State Board of Health had previously taken action endorsing such a bill in principle. Dr. Norton gave additional facts concerning provisions of the Bill and indicated that in its present form, it merits continuing support by the State Board of Health.

On motion duly made and seconded, the Board meeting recessed at 9:30 a.m. to meet in Conjoint Session with the Medical Society of the State of North Carolina as required by law at which President Bugg presided. There was recognition of Board members present and then Dr. J. W. R. Norton, Secretary-Treasurer of the Board and State Health Director, presented his annual report.

**September 29, 1961.** At 9:30 a.m. the members of the State Board of Health who were to be sworn in took the Oath of Office in the Senate Chamber of the State Capitol Building. Secretary of State, Mr. Thad Eure, called the occasion to order and presented Governor Terry Sanford. The Governor called the five members forward and the Oath was delivered by Associate Justice Emory B. Denny of the North Carolina Supreme Court.

Those receiving the Oath of Office included the two elected in the May, 1961, meeting of the Medical Society of the State of North Carolina, all 4-year terms ending June 30, 1965:—Charles R. Bugg, M. D., Raleigh, and John R. Bender, M. D., Winston-Salem.

Appointees of the Governor included Lenox D. Baker, M. D., Durham, Glenn L. Hooper, D. D. S., Dunn, and Mr. D. T. Redfearn, Wadesboro. Many friends including members of the staff of the State Board of Health witnessed the ceremony.

The Governor expressed appreciation for the leadership of Dr. J. W. R. Norton as State Health Director, and commented on the constructive program of public health which the State Board of Health is promoting with limited funds.

After the above oath-taking ceremony, members moved to the Board Room in the Cooper Memorial Health Building for the regular quarterly Board meeting.

The meeting was called to order by President Bugg who welcomed the new members of the Board and stated that all were looking forward to working together.

Attending: Dr. Charles R. Bugg; Dr. John R. Bender; Dr. Lenox D. Baker; Dr. Roger W. Morrison; Dr. Ben W. Dawsey; Dr. Oscar S. Goodwin; Dr. Glenn L. Hooper; Mr. D. T. Redfearn.

On Motion of Dr. Dawsey, seconded by Dr. Bender, the minutes of the Board meeting held on May 10, 1961, were approved as circulated to members.

President Bugg announced that it was time for the election of officers and a new Executive Committee member, and asked that Dr. Glenn L. Hooper preside while he, as President, withdrew from the Board Room. On motion of Dr. Bender, seconded by Dr. Baker, Dr. Charles R. Bugg was unanimously re-elected President of the Board by acclamation. Dr. Bugg returned and chaired as President, and Dr. Bender retired from the room.

Dr. Dawsey moved that Dr. John R. Bender be re-elected as Vice-President. Motion seconded by Dr. Goodwin, and unanimously passed.

Dr. Oscar S. Goodwin moved that Dr. Ben W. Dawsey be nominated to serve on the Executive Committee. Motion seconded by Dr. Hooper, and unanimously carried.

Dr. Fred T. Foard, Director of the Division of Epidemiology, gave a report on the poliomyelitis situation this year, 1961, so far. He stated we have had the lowest poliomyelitis rate in the history of the State,—only 12 cases reported so far, of which five were paralytic. The vaccination record of paralysis cases show that only one of these five individuals had received the four recommended inoculations.

As further information for the Board, Dr. Foard discussed the hepatitis situation, since the State reported a total of 1,435 cases through September 29, 1961, only five of which were suspected of being of the serum type contrasted with the infectious type. After much discussion, Dr. Baker moved that the Board, through the Attorney General's office, look into the law, and possibly outline legislation, if needed, to require proper sterilization of hypodermic needles and syringes used in administering vaccine, drugs, or other parenteral injections. If found practical, this legislation would be introduced in the next General Assembly. In the meantime, he suggested that appropriate medical channel publicity be intensified to guard against the dangers of inadequate sterilization. It was recognized that only a very small fraction of cases could be prevented by this approach. Motion seconded by Dr. Hooper, and unanimously carried.

Also, Dr. Foard reported on a food poisoning outbreak at Williamston which occurred on September 6, the first day of school. A dinner was

given to the school children in one of the schools consisting of chicken salad, pimento cheese and a salad with dressing as the three principal foods. In addition milk was served. Feeding started at 11:00 a.m. and by 3:00 p.m. thirty children were seriously ill and seven were hospitalized during that afternoon. Samples of the food served were obtained and sent to the State Laboratory. Only one of the foods—chicken salad—showed contamination which was by staphylococcus. An examination through culture taken of persons who prepared the food showed that the lady who prepared the chicken salad was infected (nose and throat) with staphylococci. Inadequate refrigeration, after preparation of the salad, increased the danger. All children have recovered and were reported to be back in school within a ten-day period.

Mr. J. M. Jarrett, Director of the Division of Sanitary Engineering, presented proposed revisions to the regulations pertaining to submission of plans, reports and specifications for water and sewerage system. He stated that these regulations had been re-written and clarified in accordance with the revised Public Health Laws as passed by the General Assembly. Dr. Dawsey moved the adoption of the proposed REGULATIONS PERTAINING TO SUBMISSION OF PLANS, REPORTS AND SPECIFICATIONS FOR WATER AND SEWERAGE SYSTEMS. Motion seconded by Dr. Baker, and carried.

Mr. Jarrett also presented a request for the extension of the boundary lines of the East Marion Sanitary District. He stated that the documents, as well as the various transactions relative to this matter had been examined by his office and with the Attorney General's office, and were found in order, and he recommended favorable action by the Board. On Motion of Dr. Baker, seconded by Dr. Goodwin, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH EXTENDING THE BOUNDARY LINES OF THE EAST MARION SANITARY DISTRICT IN McDOWELL COUNTY, NORTH CAROLINA, was passed.

Mr. Jarrett presented a request by the City of Winston-Salem that they be allowed to permit fishing from a pier constructed over a small portion of Salem Lake, Winston-Salem's primary water supply lake. He stated that an investigation had been made by the Division and with strict regulations controlling fishing from the pier it will not affect the quality of the water in an adverse manner. In view of all the information obtained, Mr. Jarrett recommended approval by the Board. On motion of Dr. Dawsey, seconded by Mr. Redfearn, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH TO PERMIT CONTROLLED FISHING FROM PIER CONSTRUCTED OVER A PORTION OF SALEM LAKE, WINSTON-SALEM'S CLASS I WATER SUPPLY RESERVOIR, was passed.

Mr. C. M. White, Chief of the Insect and Rodent Control Section, presented and discussed proposed revisions of rules and regulations relating to State aid to mosquito control districts or other local governmental units engaged in mosquito control undertakings. These changes became necessary by the new legislation passed by the 1961 General Assembly. After a full discussion of these changes, Mr. White recommended the adoption of the proposed amendments. Dr. Baker moved approval of the amendments en-

titled NORTH CAROLINA STATE BOARD OF HEALTH RULES AND REGULATIONS GOVERNING STATE AID TO MOSQUITO CONTROL DISTRICTS OR OTHER LOCAL GOVERNMENTAL UNITS ENGAGED IN MOSQUITO CONTROL UNDERTAKINGS. Motion seconded by Dr. Bender, and carried.

Secretary Norton announced that he was happy to report that he had been successful in obtaining approval of Dr. Jacob Koomen, Jr., to become Assistant State Health Director, provided approval is given by the State Board of Health. He presented, for the Board's information, a biographical sketch and bibliography of Dr. Koomen's achievements and stated that he had been a member of the staff here for the past five years. Also, he said that the matter had been discussed with Governor Terry Sanford and the Governor stated he would approve the appointment. Secretary Norton recommended, if the Board approved Dr. Koomen's selection as Assistant State Health Director, that his services begin as of October 1, 1961, and that he be paid the maximum salary of the present range at \$16,452. Dr. Baker moved, seconded by Dr. Goodwin, that the Board employ the services of Dr. Koomen as Assistant State Health Director at maximum salary of the present range, effective October 1, 1961. Motion unanimously carried.

A full report was made to the Board members by Dr. Bugg regarding the letter he had sent to the Department of Administration at the Board's direction May, 1961, recommending a salary increase for Dr. Norton, effective July 1, 1961, from \$17,000 to \$20,000 per year. It appeared that the consensus was that the Director's salary is not in keeping with, nor adequate for, his position in the health field. Dr. Baker moved that President Bugg write another letter to the Governor and Advisory Budget Commission pointing out the fact that Dr. Norton is to be named President-Elect of the American Public Health Association and has received other honors and what it means to our State to have such a leader, and to urge the Governor and Advisory Budget Commission to make available the deserved increase. Dr. Bugg was further asked to tell the Governor that he has the wholehearted and unanimous approval of the Board in this request. Motion seconded by Dr. Goodwin, and carried unanimously.

Secretary Norton also reported that (a) the Board is urgently in need of a Director to head up the Mental Health Division and we have had an outstanding applicant. The salary scale is not, however, sufficient to interest a psychiatrist with the qualifications required in the job. Also, that a properly qualified pathologist is not available at the present range set for the Director of the Laboratory Division. (b) Mr. Jackson advised by telephone that he would be unable to attend this meeting due to the fact that he had already made plans to attend the American Pharmaceutical Association in Miami but wished to be represented by proxy as favoring Dr. Koomen as recommended and for the re-election of the President and Vice-President of the Board.

Dr. Norton presented to the Board a certified copy of a document of commendation from the "GENERAL ASSEMBLY OF 1961, COMMENDING THE MEMBERS OF THE COMMISSION TO STUDY THE CAUSE AND CONTROL OF CANCER IN NORTH CAROLINA TOGETHER WITH

THE NORTH CAROLINA DIVISION OF THE AMERICAN CANCER SOCIETY, THE MEDICAL SOCIETY OF NORTH CAROLINA AND THE STATE BOARD OF HEALTH, AND PROVIDING FOR THE CONTINUANCE OF THIS COMMISSION DURING THE NEXT BIENNIVUM."

At the request of Mr. Redfearn, Dr. William L. Wilson, Director of the Occupational Health Section, explained the current status of State Civil Defense Agency Guidance on Home "fall-out" shelters and promised to obtain for each Board member the latest printed material being sent out by the Agency.

Mr. Harper gave a progress report on the renovation of the auditorium in the Laboratory Building. This year, beginning in July, we were able to do several things which were long overdue, such as installing new ceiling, lighting fixtures, sanding and refinishing flooring, new paint, new blinds of the audio-visual type, and draperies. There is enough money to purchase air-conditioning which we hope will be installed (within the next few months). The only negative report was on 200 needed new chairs. The Division of Purchase and Contract, and also the Board of Awards, turned down the order for chairs which were selected as being the most suitable for use in the auditorium. The difference in cost of those chairs and the chairs on State contract was \$794. For that reason the order was cancelled temporarily. We are able to utilize federal general health money for the purchase of chairs through an unencumbered balance, and if this money is not used it will revert to Washington. However, it can be encumbered for two years.

Dr. Norton had suggested that if the appropriate chairs are bought, the State Board of Health staff would take care of half the \$794 difference out of their own pockets.

Dr. Baker thought that if a letter signed by Dr. Bugg was written to the Board of Awards, they might reconsider, and other Board members agreed the suggestion would be the proper approach and might be effective.

Dr. Preston read a proposed resolution for dedication of the renovated and redecorated State Board of Health Auditorium in honor of Dr. John H. Hamilton. After a few minor changes, Dr. Morrison moved that the following resolution be adopted, seconded by Dr. Dawsey, and carried unanimously.

**"RESOLUTION DEDICATING REDECORATED STATE BOARD  
OF HEALTH AUDITORIUM HONORING  
JOHN H. HAMILTON, M. D.**

'In 1933 Dr. John Homer Hamilton became the second Director of the North Carolina State Laboratory of Hygiene. In 1942 he became Editor of The Health Bulletin and in 1951 was named Assistant State Health Director. He served in these relationships until his retirement April 30, 1960. Dr. Hamilton came to North Carolina in 1920 as New Hanover County Health Officer. In 1931 he came to the State Board of Health as Director of the Division of County Health Work and Epidemiology.

'Prior to these North Carolina responsibilities, Dr. Hamilton served as Associate State Director, International Health Division, Rockefeller Foundation; As Associate Professor of Preventive Medicine and Assistant Direc-

tor, State Public Health Laboratory, University of Iowa; and as Associate Bacteriologist, Division of Laboratories and Research, New York State Department of Health.

'Dr. Hamilton is a native of Missouri. He received his undergraduate degree from Oklahoma Agriculture and Mechanical College, now Oklahoma State College. He is a graduate of the Harvard School of Medicine.

'Concurrent with his work in public health Dr. Hamilton has held office in professional associations and been affiliated with various medical, public health and cultural organizations. His outstanding leadership in promoting the interests of the State Board of Health through building up the Laboratory Division and his contributions to the program and staff in other relationships are recognized hereby with deep appreciation.

'As an expression of this appreciation the State Board of Health formally dedicates the newly redecorated and refurnished Auditorium of the State Board of Health in the Laboratory Division in honor of Dr. Hamilton. Hereafter, by action of the State Board, this Auditorium shall be designated as the '*John Homer Hamilton Auditorium*'.

'This designation seeks not only to recognize Dr. Hamilton's leadership, patience, wisdom and kindness, but also serves to challenge and stimulate these same characteristics of dedication and unselfish service in the lives of all who serve in any capacity in public health in North Carolina.

'September 29, 1961

J. W. R. Norton, M. D.,  
State Health Director

Charles R. Bugg., M. D., President  
N. C. State Board of Health."

At Dr. Norton's request, Mr. Jarrett gave a report on the migrant labor situation since there has been considerable newspaper and radio publicity about it in recent months. He gave a history of the beginning of migrant labor camps following World War II. In 1955 the Governor appointed what is known as the Governor's Committee on Migrant Labor, composed of representatives of Employment Security Commission, Health, Welfare, Labor, Agriculture, Education, Council of Churches, and two or three members at large. This committee has been working for several years in an attempt to bring about better housing and sanitation facilities at these camps. The committee prepared bills and submitted them to the 1959, and again to the 1961 General Assembly, asking that the State Board of Health be given authority to establish and enforce minimum rules and regulations regarding sanitation, but they failed both times. A survey was made July 6-27, 1961 of 108 camps; 48 were found to be operating without permits; 46 did not have approved water supplies; 37 camps had unsatisfactory sewage disposal. Following that, the Chairman of the Governor's Migrant Committee asked various agencies to try to get together some suggestions as to the minimum type of regulations that we feel should be proposed to the next session of the General Assembly. He is going to call a meeting sometime the middle of October, at which time these suggestions will be presented. They are presently working on development of minimum housing and sanitation regulations which would not cause a hardship on the farmers but would help to provide at least minimum type facilities for these people. He pointed out the very definite need for more interest on the part of owners and crew leaders themselves to provide supervision in order to see that these migrant workers do not destroy property.

Mr. Brandt Ayers of the Raleigh Times, who has written a series of articles on migrant labor camps, was called on for his comments and he said he thought Mr. Jarrett has done a marvelous job and that he agreed we should have minimum health regulations and that the key to improvement lies with the farm operators and crew leaders.

On March 17 of this year, the Legislature transferred licensure of nursing homes to the State Board of Health from the Medical Care Commission, and at the May meeting in Asheville the Board approved operating under the regulations used by the Medical Care Commission. A Nursing Home Section has been formed in the Personal Health Division and a team of personnel has been employed to administer the examination and licensure program. Dr. Fred Kittler, representing the Nursing Home Section was present, and presented the following list of individuals recommended by the Section to serve on the Nursing Home Advisory Council:—

One-Year Term—*Mrs. Edith Chance*, Fayetteville, representing the North Carolina Association of Nursing Homes  
*Mr. Seth Hollowell*, Goldsboro, representing the community and serving representative of the consumers of the services offered.  
*Dr. Jere Roe*, Raleigh, representing the North Carolina Dental Society.

Two-Year Term—*Miss Ruth Current*, Raleigh, representing the community and serving as representative of the consumers of the services offered.  
*Mr. William Hurley Randall*, Lillington, representing the North Carolina Pharmaceutical Association.  
*Mr. Travis Tomlinson*, Raleigh, representing the North Carolina Association of Nursing Homes.

Three-Year Term—*Mr. Joseph E. Barnes*, Rex Hospital, Raleigh, representing the North Carolina Hospital Association.  
*Mrs. Nan B. Cummings*, Asheboro, representing the North Carolina State Nurses Association.  
*Dr. D. A. McLaurin*, Garner, representing the Medical Society of the State.

Ex-Officio Member—*Dr. Ellen Winston*, Raleigh, representing the North Carolina State Board of Public Welfare.

The number and type of Council representation was previously approved at the meeting of the Board in May. Dr. Dawsey moved that the Board accept the nominations as the Nursing Home Advisory Council, seconded by Dr. Morrison, and carried unanimously.

Dr. Maddry presented a written report on the custom built incubator developed by two employees in the Laboratory which has saved the State \$2,000. After discussion, Dr. Bender moved that the Board express its commendation and appreciation for the excellent job done in constructing the incubator, and test tube holders, for the Laboratory Division which has resulted in considerable savings to the State. Motion seconded by Dr. Goodwin, and passed. Mr. Harper said he hoped a merit awards program could be developed and adopted by the State to give an incentive to workers of this type. Adjournment 12:30 p.m.

January 18, 1962. The regular quarterly meeting of the N. C. State Board of Health was held Thursday, January 18, 1962, 10:00 a.m.-4:00 p.m., in the Board Room of the Cooper Memorial Health Building, President Charles R. Bugg, M. D., presiding.

The meeting was called to order by President Bugg, who introduced Dr. Jacob Koomen, Jr., the new Assistant State Health Director, Dr. E. R. Hardin, local Health Director of Robeson County and Mrs. Adler representing the Raleigh Times.

Attending: Dr. Charles R. Bugg; Dr. John R. Bender; Dr. Ben W. Dawsey; Dr. Lenox D. Baker; Mr. Jasper C. Jackson; Dr. Oscar S. Goodwin; Dr. Glenn L. Hooper; Mr. D. T. Redfearn.

Dr. Goodwin moved that the minutes of the September 29, 1961 meeting, be accepted as circulated. Motion seconded by Dr. Dawsey, and carried.

Dr. Bugg asked each member of the Board to accept a Division and to familiarize himself with the duties of that Division and act as liaison. He assigned Epidemiology to Dr. Goodwin; Oral Hygiene to Dr. Hooper; Local Health to Dr. Bender; Personal Health to Dr. Baker; Sanitary Engineering to Dr. Dawsey and Mr. Redfearn; Laboratory to Dr. Morrison and Mr. Jackson, and Central Administration to Dr. Bugg.

For the orientation of new members on the Board, each Division Director was called on for a brief description of the activities of his Division, with Dr. Wilson substituting for Dr. Foard who is on a leave of absence.

Dr. James F. Donnelly, Director of the Personal Health Division, gave a progress report on care of the eyes of the newborn for the prevention of ophthalmia neonatorum. He called attention to a summary of the Board's actions through the years and also an article from the Journal of the American Medical Association, April 18, 1959, page 237 and to the Special Report of the Committee on the Fetus and the Newborn, March 1958 on this subject, both of which had been circulated to the Board members. He specifically referred to items two and three in the article. Generally speaking, considering the fact that we still have a considerable number of midwife deliveries, it was his recommendation that the use of silver nitrate should be continued as it has in the past years.

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, presented a preliminary report on proposed revisions of the State's vending machine regulations which were presented to the Board at its May 11, 1960 meeting. These regulations were adopted at that time and it was intended that they would become effective January 1, 1961 but after a series of public hearings with local health directors the effective date was postponed on account of opposition which had developed in connection with the handling of permits and several suggested amendments. Mr. Jarrett stated that the vending machine regulations were again revised and that a series of hearings had been held and an effort made to correct, revise and amend them so that they would be acceptable to all. This revision has been distributed to local health directors in each county and they were asked to submit their comments on the new proposed regulations by January 15, 1962. So far, not enough replies have been received to know whether or not the amended revisions are acceptable. Mr. Jarrett

stated that this was only a progress report on the matter; therefore, with the Board's approval he would like to continue the consideration of this matter until enough definite replies are received to meet the approval of all.

Mr. Jarrett also discussed further progress relative to health protection of migrant workers and the minimum sanitation requirements used in inspection of migrant labor camps. He reported on a recent survey made and stated that this information had been distributed to the various agencies concerned with the suggested minimum housing and sanitation requirements for this season. It is expected that another effort will be made to have these requirements adopted by the next General Assembly. Meantime, it is hoped that voluntary cooperation on improved living conditions will be obtained.

He also discussed the relative effectiveness of sewage lagoons versus conventional mechanical treatment processes, pointing out the necessity for proper design of lagoons on an individual basis depending on the location, water courses to be effected, construction and maintenance.

President Bugg announced that Mr. D. S. Coltrane, Consultant to the Governor on Economy and Efficiency, and Dr. Eugene A. Hargrove, Commissioner of Mental Health of the N. C. Hospitals Board of Control, were present and wished to discuss the present status and future plans for the community mental health services, and that the Board would go into executive session at 11:30 a.m. to the break for luncheon. A committee of the Board was appointed to explore the matter further and report to a called meeting of the Board to be held in February,—Chairman Dr. Bender with Doctors Baker, Dawsey and Goodwin.

During the executive session Secretary Norton gave a brief summary report which was prepared by Dr. Donnelly, on a birth control method (Enovid) with no recommendation or action needed at this time other than continuing to keep up with the developments. Possibly action may be recommended later on dependent upon more extended interest in the use of the contraceptive pills which are now being offered on a voluntary basis by the Mecklenburg County Welfare Department to aid in preventing increases in the number of illegitimate children receiving welfare aid.

At 12:40 p.m., the Board adjourned for lunch to reconvene at 2:00 p.m.

Mr. E. A. Pearson, Director of the Division of Oral Hygiene, gave a progress report on fluoridation in North Carolina. Each member of the Board was given informational material on fluoridation, including a map showing the towns using fluoridated water—both natural and controlled. Dr. Pearson gave the following facts and figures:—

"The first town in North Carolina to adopt and use controlled fluoridation was Charlotte, in 1949. Since that time thirty-five other towns in our State have adopted and are using controlled fluoridation. These towns have experienced opposition by small minority groups; yet, in the majority, the governing bodies have proceeded to take positive action and to provide their cities and towns with controlled fluoridation. Those towns which have provided controlled fluoridation with the least amount of public concern are those in which the city councils adopted the measure as a

public health measure without a vote of the people. Raleigh, Wilmington, Aberdeen and Greenville are the only towns in North Carolina, now fluoridating, where a vote of the people on this issue was in the affirmative. It has been defeated by referendums in Greensboro, Valdese, Asheville, Statesville and Mt. Holly.

"In addition to the 36 towns using controlled fluoridation there are 17 towns in the State whose water supplies carry a naturally occurring fluoride content of 0.7 ppm or more.

"The 36 towns now using controlled fluoridation serve a population of 1,005,418. The 17 towns which have naturally fluoridated water serve a population of 36,142. The total population in North Carolina now drinking fluoridated water is 1,041,560, or 57.8% of our urban population.

"The three towns which instituted fluoridation in 1961 are Goldsboro, Newton, and Sanford. Towns presently working toward fluoridation are: Elon College, Brevard, Banner Elk, Granite Falls, Chapel Hill, Mount Pleasant, Rutherfordton and Spindale, Cornelius, Statesville, Burlington, Elizabethtown, Graham, Jacksonville, Leaksville, Marshall, Canton, Clyde, North Wilkesboro, Tryon, Asheville and Durham."

Dr. Pearson called attention to a recent letter prepared by Dr. Norton which was mailed to the local health directors, dental members of the local boards of health, and presidents of county medical and dental societies. In this letter Dr. Norton stressed the opportunities that all people engaged in health work have in the promotion of fluoridation. Dr. Pearson stated that this letter has brought a tremendous response.

Dr. Pearson pointed out that the Division of Oral Hygiene works in close cooperation with the Division of Sanitary Engineering in the State-wide fluoridation campaign. He stated that it is his belief that the towns which are adding fluoride to their water supplies are receiving even greater benefits than just the reduction in dental caries because these towns, by providing better trained personnel for their water plants, have improved the quality of the water services to the people. Mr. Jarrett, Director of the Division of Sanitary Engineering, indicated his agreement with this statement.

In conclusion, Dr. Pearson expressed the belief that, with the tremendous interest and activity in the fluoridation program throughout the State, within the near future all towns in North Carolina will be providing controlled fluoridation for their citizens. Dr. Pearson announced that the January issue of The Health Bulletin will be devoted to fluoridation.

In the discussion which followed Dr. Pearson's presentation, Dr. Glenn L. Hooper, Dental Member of the Board, said that ever since Dunn has had fluoridation, which was started in 1953, he has observed a definite reduction in the incidence of dental caries among the children. In response to Dr. Hooper's suggestion that the State Board of Health take some action to get more towns to adopt fluoridation, Dr. Norton stated that the Board has previously taken specific action, first approving, and, later, recommending the fluoridation of municipal water supplies.

Mr. Harold Mauldin of the Venereal Disease Control Section, presented a written report on laboratory reporting of reactive serologies. The need

and utilization of these reports by health departments was discussed. A summary of the outcome of visits to the 226 private and hospital laboratories was presented. The acceptance and participation of laboratories and physicians in this control measure and its influence on venereal disease control was also discussed. Dr. Koomen commented that this is a very fine example of what is available epidemiologically in working out problems, pinpointing a situation or specific need and taking the proper action to effect a solution.

Dr. Lynn Maddry, Acting Director of the Laboratory Division, discussed the certification of water plant laboratories as examining water in accordance with the Standard Methods for the Examination of Water and the U. S. Public Health Service Drinking Standards. Dr. Maddry stated that this will be a new activity for the Laboratory and one that will involve the issuing of a certificate of approval. This certification of the water plant laboratories will be in addition to what the Sanitary Engineering Division is now doing in certifying the supply as a whole, and will be carried out in cooperation with the Sanitary Engineering Division. He also pointed out that the laboratory personnel now certifying milk laboratories could do this certification of water plant laboratories with a minimum of additional expense. On motion of Dr. Goodwin, seconded by Mr. Jackson, the Board approved the certification of water plant laboratories by the Laboratory Division for those water plants supplying water to interstate carriers.

Mr. Herbert Toms, Attorney for the State Board of Embalmers and Funeral Directors, gave a brief report on the need for more stringent and broader legislation for funeral homes. He illustrated his point by referring to the recent publicity on the Guilford County incident relative to shallow graves, with possibly other irregularities incident thereto, and pointed out why control over employees other than licensees was needed. He asked that the State Board of Health, through its Sanitation Division, revise and establish new rules and regulations under its authority. He stated his Board was working closely with the State Board of Health on proposed legislation to recommend to the next General Assembly. Mr. Toms stated there were no State-wide rules or regulations regarding the depth of graves for human bodies. It was a problem of local boards of health, according to the location or situation, such as how far from sea level. This was information for the Board and no action necessary. However, Dr. Norton stated that the staff is working with a committee appointed by him to draft proposed legislation for the next General Assembly. The committee will consist of three physicians, three funeral directors, and three local registrars.

At this point Dr. Donnelly presented a written report of a meeting he had attended this morning at the request of, and with a committee of, the N. C. Association of Nursing Homes and Homes for the Aged and the State Board of Public Welfare. The State Board of Welfare took no action on the request of the N. C. Association of Nursing Homes.

Dr. Wm. L. Wilson, Chief of the Occupational Health and Radiation Section, presented a report on progress of the State Radiological Health Program from its beginning when the Board approved a minimal program,

the cost of such a program, and the cooperation and support of the Public Health Service. He recommended that the Board reaffirm its interest and its position by urging all possible rapid and reasonable expansion of the radiological program. Dr. Baker moved that the report be accepted, seconded by Dr. Goodwin, and carried.

Dr. Jacob Koomen, Jr., the new Assistant State Health Director, was present and expressed appreciation and thanks for the confidence the Board had placed in his ability, experience, and training by appointing him to his present position effective October 1, 1961.

Dr. Koomen then discussed the oral poliomyelitis vaccine (Sabin) pointing out its advantages and disadvantages. After noting the availability of 1 and 2 types of oral vaccine, he stressed the fact that type 3 oral vaccine is not yet available. In its absence, complete immunization, using the 3 virus types is not possible. Therefore, at this time, Salk vaccine remains the preparation of choice. He urged the program using Salk vaccine, presently in effect, be continued.

Also, Dr. Koomen reported on a tetanus immunization campaign and said that Dr. Goodwin has been a long time worker in the field of tetanus prevention. In June Dr. Goodwin brought together interested people to formulate an immunization program. The AMA in 1959 went on record as supporting such a program. On September 30 the Rural Health Committee of the State Society met to discuss the ways of going about tetanus immunization. The Executive Committee of the State Medical Society adopted the recommendations of the Rural Health Committee with a goal of immunizing one million North Carolinians to tetanus in the coming year. Each local Medical Society has been asked to appoint a special Committee for this purpose. With this as a key, perhaps further immunization campaigns can be undertaken. The Board has never been formally requested to go on record as sponsoring such a program and Dr. Koomen suggested it might be helpful for the Board to go on record as supporting a State-wide program. Dr. Dawsey moved that the Board go on record as supporting and urging people to accept the tetanus immunizations. Dr. Bender seconded the motion, and carried.

Mr. Charles Harper, Director of Administrative Services, reviewed briefly, staff work underway on the 1963-1965 biennial budget. He reported that the "A" budget request must be submitted by April 1, 1962 while the "B" budget request must be submitted by June 1. An explanation of the difference between the "A" and "B" budget was given. Intensive preparation of budget requests for all programs of the State Board of Health is being carried out by Division Directors and Section Chiefs.

President Bugg reported to the Board that in accordance with its instruction at the meeting on September 28, 1961, he had written to Governor Terry Sanford regarding a second request from the Board relative to the increase for the State Health Director from the present salary of \$17,000 to \$20,000 and that at the January meeting of the Advisory Budget Commission Secretary Norton's salary was increased to \$19,000. At this point, Dr. Norton expressed his appreciation and thanks to the Board for their confidence, interest and cooperation in this matter.

It was moved by Mr. Redfearn, seconded by Dr. Baker, that the following statement be entered upon the minutes of the Board in connection with the honor recently conferred upon Dr. Norton, and unanimously passed. "The State Board of Health takes proud and appreciative notice of the election of the North Carolina State Health Director and Secretary-Treasurer of this Board, J. W. R. Norton, M. D., who on November 15, 1961 at the meeting in Detroit, Michigan, was elected President-Elect of the American Public Health Association. This recognition brings favorable attention upon the public health work in this State and upon Dr. Norton's outstanding leadership. As a Board we congratulate him on this honor and go on record as supporting him in this responsibility throughout the subsequent term of office as President of this organization which he will assume at the close of the APHA annual meeting in Miami Beach, Florida, October 15-19, 1962."

The Board also directed Dr. Norton to forego his customary modesty and arranged for his picture to be hung in the Board Room. Adjournment 4:00 p.m.

February 18, 1962. There was a special call meeting of the North Carolina State Board of Health held Sunday, February 18, 1962, in the Raleigh Room, Sir Walter Hotel, Raleigh, President Charles R. Bugg, M. D., presiding.

Mr. D. S. Coltrane, Consultant to the Governor on Economy and Efficiency, and Dr. Eugene A. Hargrove, Commissioner of Mental Health, N. C. Hospitals Board of Control, were present.

Attending: Dr. Charles R. Bugg; Dr. John R. Bender; Dr. Ben W. Dawsey; Dr. Lenox D. Baker; Mr. Jasper C. Jackson; Dr. Oscar S. Goodwin; Dr. Glenn L. Hooper; Mr. D. T. Redfearn.

President Bugg opened the meeting and stated that it had been called for the purpose of hearing the report of the special committee named at the last quarterly meeting of the Board on January 18, 1962, to consider matters concerning local mental health clinics as presented by Mr. Coltrane and the committee—Dr. John R. Bender, Chairman, with Doctors Lenox D. Baker, Ben W. Dawsey and Oscar S. Goodwin.

Dr. Bugg called on Dr. Bender, the Chairman of the Committee, who asked Dr. Baker, a member of the Committee to read the report. The report was as follows:

"In July 1949 the Community Mental Health Clinics were transferred from the Hospitals Board of Control to the State Board of Health. Since 1949 local annual direct allocations for the clinics have increased by over \$500,000.00 and it is estimated those local health department staffs in the past year contributed indirectly in service about half that amount in support of the clinics.

"The State Board of Health has no recommendations concerning the assignment of responsibility for the Mental Health Clinics. If their management remains under the direction of the State Board of Health the Board will continue to administer the clinics in cooperation with its local departments and all groups concerned therewith. The primary concern

of the State Board of Health is the over-all health of the citizens of the State.

"If the State administration deems it advisable to transfer responsibility for the clinics to another agency the State Board of Health will abide by any and all directions in making the transfer and will administer any funds now assigned to the State Board of Health specifically for the support of the clinics until that time when the Legislature can reassign such responsibility."

At the conclusion of the report Dr. Bender moved, and Dr. Baker seconded the motion, that the report be adopted. In the discussion which followed, Dr. Bugg called on Dr. Norton, Dr. Hargrove and Mr. Coltrane for brief comments. A fully cooperative spirit in keeping with the committee's report was evidenced in these brief discussions. The Committee's report was adopted unanimously, and on motion of Dr. Baker, seconded by Dr. Goodwin, the meeting adjourned.

May 9, 1962. The annual meeting of the North Carolina State Board of Health was held, as required by law, during the annual meeting and conjointly with a general session of the Medical Society of the State of North Carolina,—in the Reynolds Coliseum, State College, the Director's Office, Room 105, Wednesday, May 9, 1962, 8:15 a.m. to 9:25 a.m., Dr. Charles R. Bugg, President, presiding.

Attending: Dr. Charles R. Bugg; Dr. Ben W. Dawsey; Dr. Lenox D. Baker; Dr. Roger W. Morrison; Mr. Jasper C. Jackson; Dr. Oscar S. Goodwin; Dr. Glenn L. Hooper; Mr. D. T. Redfearn.

The meeting was called to order by President Bugg. On motion of Dr. Hooper, seconded by Mr. Jackson, the minutes of the Board meeting held on January 18, 1962, were approved as circulated. It was moved by Dr. Baker, seconded by Dr. Goodwin, that the minutes of the special Board meeting held on February 18, 1962, be approved as circulated.

Mr. John Andrews of the Sanitary Engineering Division, presented a report on the proposed revisions of the SANITATION REGULATIONS ON FOOD AND BEVERAGE VENDING MACHINES which had been adopted by the Board of May 11, 1960, and which had been circulated to members. On motion of Mr. Jackson, seconded by Dr. Dawsey, the revisions were adopted. The effective date of the revised regulations was established as of January 1, 1963, on the motion of Dr. Baker, seconded by Mr. Jackson.

Dr. James F. Donnelly, Director of the Personal Health Division, presented three proposed recommendations from the Advisory Council of the Nursing Home Section of the State Board of Health which had previously been circulated to members of the State Board of Health. These were individually discussed by the Board at length on a motion from Dr. Lenox Baker. The *first* recommendation concerning the definition of a nursing home was revised to read, "A nursing home is a facility which is designed and equipped to provide nursing care and related medical services for three or more persons unrelated to the licensee who have ailments for which individualized medical and nursing care is indicated. These patients

do not require the special facilities of a general hospital but will require services not usually found in the home for the aged (boarding home). These patients will require continuing medical supervision; however, nursing care is their primary need". The motion to amend the definition was made by Dr. Lenox Baker and seconded by Mr. Jackson. The *second* recommendation was changed to read, "when possible and if feasible, a registered graduate nurse shall be in charge of the nursing service of a nursing home". This change was made on the motion of Dr. Lenox Baker and seconded by Mr. Redfearn, and passed. The *third* recommendation, which was accepted as stated, read: "There shall be a registered professional nurse or licensed practical nurse on duty in the home at all times to insure that adequate nursing service shall be supplied for the patients, effective January 1, 1963". It was moved by Dr. Baker, seconded by Dr. Dawsey, that this regulation be accepted as stated. This also passed.

A progress report was made by Dr. J. W. R. Norton, State Health Director, on Mental Health Services Study Committee visit which had been requested by Governor Terry Sanford and arranged through the Southern Regional Education Board, April 13-15, 1962. Dr. Norton also acquainted the Board with the fact that the Executive Council of the Medical Society of the State of North Carolina had reversed its previous action and had taken action recommending to the Governor that the Mental Health Community Services remain with the State Board of Health rather than be transferred to the Hospitals Board of Control as this Council had recommended on a previous occasion. It is possible that in making the change the Executive Council considered the fact that there are only two physicians of fifteen members of the Hospitals Board of Control whereas the State Board of Health has five physicians in its membership of nine.

Dr. Jacob Koomen, Jr., Assistant State Health Director, made a report on the Sabin Oral Polio Vaccine. He recommended to the Board that this vaccine be made acceptable for school entrance since out-of-State students might present themselves from states which already have had greater use of oral vaccine. It was his recommendation that the vaccine not be recommended for routine use during the summer because of other viruses in the intestinal tract which would hamper its effectiveness. Dr. Koomen also pointed to the possible effectiveness in control of outbreaks after determining type specificity. Motion passed.

Mr. Marshall Staton of the Sanitary Engineering Division, presented an amendment to the watershed regulations. He stated that when the watershed regulations were rewritten in 1960 a provision in Section 6, Item (d) was omitted that would permit the watering of stock from Class I or Class II reservoirs. Item (d) has been rewritten permitting the watering of stock under controlled conditions at sites approved by the State Board of Health in Class I and Class II reservoirs. Item (d) as rewritten is as follows:

"The watering, washing or wallowing of any horses, mules, cattle, or other domestic animals shall not be permitted in or along the margin of any Class I or Class II reservoir except watering of stock may be permitted in cases where large volumes of water are involved and the State Board of Health determines, after a thor-

ough investigation, that the quality of the water, in the opinion of the Board, will not be adversely affected so as to render it unsatisfactory for use as a public water supply."

On motion of Dr. Goodwin, seconded by Mr. Redfearn, the above amendment to the watershed regulations was adopted.

Mr. Charles L. Harper, Director of Administrative Services, made a progress report on the 1963-1965 budget. He reviewed the various guidelines that govern the preparation of the "A" budget and listed those programs in which the larger increases were requested. It was noted that the "A" budget proposal contains an increase of slightly more than \$600,000, or 8 percent over the budget for the 1961-'63 biennium. On motion of Mr. Jackson, seconded by Dr. Goodwin, the Board adopted the 1963-1965 "A" budget as presented. Time did not permit the discussion of the "B" budget, however, a brief outline of tentative requests as prepared by program directors, was distributed to the Board members.

Dr. W. L. Wilson, Chief, Occupational Health Section, made a brief progress report on the State Radiological Health Program and asked that the Board reaffirm three former actions stressing the importance of this program. It was moved by Mr. Redfearn, seconded by Mr. Jackson, and unanimously affirmed that the Board desires maximum feasible speed in advancing the State Radiological Health Program. The details of Dr. Wilson's report and the three major supports by the Board as listed in a progress report to the Board was distributed by Dr. Wilson.

The meeting then *adjourned* in order that members of the Board could attend the Conjoint Session of the Board and the Medical Society of the State of North Carolina at which time Dr. Jacob Koomen, Assistant State Health Director, presented a report on PROGRESS IN THE CONTROL OF POLIOMYELITIS, MEASLES, AND INFECTIOUS HEPATITIS.

## CONJOINT SESSION REPORT, 1961\*

By J. W. R. NORTON, M.D., M.P.H., F.A.C.P.\*\*

The customary detailed (63 Page) annual report of activities in state and local public health work is provided to the Medical Society. Instead of summarizing, we felt it would be more interesting, at this time, to touch on some of the highlights and then mention a few of our problems of general mutual interest. We take up the highlights by our divisional organization.

### LABORATORY DIVISION

LYNN G. MADDRY, Ph.D., Acting Director

Among the achievements for 1960 were the offering of services for rapid identification of beta hemolytic streptococci group A by the fluorescent antibody procedure and the complement fixation tests for fungus diseases.

A serious problem is our inability to recruit and retain properly trained personnel because of the low starting salary ranges. The clerical staff is burdened beyond the point of being able to take care of the increased volume and it is necessary that the technical staff perform some of these duties which in turn reduces the number of specimens that could be examined.

It was disappointing that due to limitation of state funds provided, we are unable to meet the needs of the people in North Carolina in the field of cancer cytology, virology and environmental health.

### ORAL HYGIENE DIVISION

E. A. PEARSON, D.D.S., Director

This marks the thirtieth anniversary of our Oral Hygiene Division. The main emphasis is still on providing for children in the elementary grades a program of dental health education which includes, insofar as funds and staff will permit, the following:—classroom instruction and dental inspections for all; dental corrections for the under-privileged; and referrals to private practitioners for the other children.

Of especial significance in the progress of the program during the past year are the developments in the areas of recruitment, research, and fluoridation.

The rapid turnover of staff dentists makes recruitment a constant problem. New approaches of a recruitment brochure, mailed to senior dental students of eastern and southern dental schools, and visits to many of these schools by the Division Director have brought a dramatic change to our now having more applicants than openings. Eight new dentists will begin work in July, thereby, enabling us to provide dental health programs in many more counties than heretofore.

\* Conjoint Session Report: Medical Society of the State of North Carolina and the State Board of Health, Asheville, May 10, 1961.

\*\* Secretary-Treasurer and State Health Director, N. C. State Board of Health, Raleigh.

The Division's participation with the U.S.P.H.S. in the State-wide research project, "The Natural History of Dental Diseases in North Carolina," is progressing nicely. Dental examinations have been completed for twenty percent of the households in the total sample. The consummation of this project will provide, for the first time, prevalence rates of dental diseases for a state population. Such information will be invaluable in helping us to define our problems and to measure progress.

Recognizing that fluoridation is the most effective method of preventing tooth decay, we are glad to report progress in the fluoridation of municipal water supplies. Since our last meeting, three cities have adopted this public health measure, making a total of thirty-four North Carolina municipalities now adjusting fluorides upward to the optimum amount (one part per million) for dental development and health. The combined population of these cities is 1,036,507 and represents fifty-five percent of the urban population. Fluorides occur naturally, in amounts of 0.7 to 1.2 ppm, in the water supplies of seventeen other North Carolina municipalities with a total population of 35,569. Five also have natural fluorides in amounts beyond 1.2 ppm: Winton (1.4), Williamston (1.5), Wentworth (1.8), Rich Square (2.1) and Windsor (3.0).

### PERSONAL HEALTH DIVISION

JAMES F. DONNELLY, M.D., Director

1. Responsibility for setting standards and licensing of nursing homes was transferred from the Medical Care Commission to the North Carolina State Board of Health on March 17, 1961. The school health program was also transferred from the Division of Local Health to Personal Health on March 16, 1961.
2. Two new cancer detection clinics were added to bring to nineteen the detection clinics now functioning. An additional 4,000 Papanicolaou smears were examined by the Laboratory Division bringing the total for 1960 to 35,514.
3. Physiotherapists were added to the heart programs in three counties. We now have four physical therapists on the crippled children's and chronic disease programs.
4. A stroke rehabilitation program was initiated in five counties emphasizing home nursing care.
5. A survey program for diabetes was initiated in 20 counties with particular stress on the nutrition of the pre-diabetic discovered in the survey.
6. Nutritional programs in industry were expanded, and there was marked expansion in consultation and review of architectural plans for institutional kitchens.
7. The Crippled Children's Section instituted changes in statistics reporting and recording financial and medical information on crippled children's cases to provide a clearer basis for evaluation of these services. In this Section also the age limitation was moved from 15 to 21 for

presentation to rheumatic fever and speech and hearing clinics and it has assumed clinic observation, preoperative and postoperative, of congenital and other heart cases.

8. There was a continued reduction of midwife licenses with the number reaching a new low figure of 294.
9. Follow-up study of prematurely born infants in Wake County was completed, and the results have been analyzed and reported.

### SANITARY ENGINEERING DIVISION

J. M. JARRETT, B. S., Director

Two reports of state-wide significance were printed and distributed. One summarized results of 1½ years study of background radiation in surface streams used as sources of public water supplies. One hundred thirty-five (135) sampling stations were established on major streams of the state for periodic checking.

The second report shows results of the "Air Pollution Study of North Carolina" made in 1958-'59 as a special project with the U. S. Public Health Service. The survey indicates need for control activities generally throughout the state. Additional funds from the legislature are being requested to enable us to develop this program and provide protection against the unfortunate development of hazards such as have occurred in Donora, Pa., London and Los Angeles and to lesser degrees elsewhere.

Regulations for sanitary control of mechanical vending machines were adopted but operation has been delayed until the necessary preliminary educational program can be carried out.

In addition to continuing our participation in the air radiation surveillance network, North Carolina was added to the Public Health Service surveillance network for radioactivity in fluid milk supplies when Charlotte was added to this list. Samples are examined at the Public Health Service Radiation Laboratory, Montgomery, Alabama.

There are presently 650 public water supplies under supervision with 45 new supplies added during 1960. Water supply improvements costs last year amounted to \$3,609,372.00.

This Division and local staffs now have 22 engineers and 248 sanitarians providing environmental health protection.

### LOCAL HEALTH DIVISION

ROBERT D. HIGGINS, M.D., Director

**ADMINISTRATION**—One of the primary objectives has been to consolidate wherever and whenever feasible the smaller single county health units into district units of two or more counties. Some of our single county units could provide only a part-time health program but by joining with one or more neighboring counties, a full-time health program under the direction of a qualified full-time health director could be provided at a

salary commensurate with his duties and with improved services in each participating county in the district. Sixty-nine departments serve the 100 counties since 18 district departments serve 49 counties.

Through an incentive (50% of cost up to \$1,000 per county) offered by the State Board of Health to counties which are under, or those which do come under, the Local Governmental Retirement Plan has grown rapidly, and 61 of the 100 counties now provide their local health employees with this coverage.

**PUBLIC HEALTH NURSING**—The public health nurses have made progress, in their goals to provide improved nursing care to patients referred by physicians in private practice or in local, state and regional hospitals. The objectives of this service are to permit early hospital discharge, assist family members in nursing techniques, and promote rehabilitation and restoration.

1. Plans have been developed whereby physicians in the Veterans' Administration Hospitals refer selected patients as discharged to local health departments for nursing service. The public health nurses make one visit to the patient, reminding him of the need for continuing local physician care, and additional visits only if the patient is under the care of his local physician. This service is provided in 96 of our 100 counties.
2. Additional health departments are now providing public health nursing services to the patients discharged from our state and Veterans' Administration mental hospitals and to their families (20 counties). The state hospital medical staffs are enthusiastic about the service and only the lack of personnel in the hospitals and the health departments prevents extension of this valuable service which has decreased the number of re-admissions in these counties.
3. The referrals from N. C. Memorial Hospital have increased in number and urgency. Throughout the country, this is regarded as an outstanding example of an efficient, well organized plan for referral between a teaching hospital and local nursing resources.
4. Demonstrations of how limited nursing service to the chronically ill may be provided by busy generalized public health nurses are encouraged and have been started in Halifax, Alamance, New Hanover, Person, Mecklenburg, Guilford, Orange, Chatham and Lee health departments. These have had the enthusiastic support of the local medical societies and the State Society Committee On Chronic Illness.

The chronically ill and aged in nursing homes and boarding homes have received improved services through direct consultation and in-service education for the staffs of these homes.

**HEALTH EDUCATION**—This Section promoted a three-day Workshop on Communications in Raleigh for ninety professional employees for the improvement of intra-agency communications. The staff consisted of people with special skills in the fields of the behavioral sciences, business and industrial personnel management, and public relations, as well as the dis-

ciplines of public health. A committee summarized the suggestions and made recommendations for valuable innovations and modifications of practices. These are being followed up by various staff members with encouragement by the State Health Director, and improvement in communications is expected.

We encourage local health departments to employ a full-time health educator when the budget, size of staff and readiness for a health educator make this feasible. Two additional health departments established health education positions and one department increased its staff thus bringing to twelve the health departments served by their own health educator. Three position vacancies exist due to demand exceeding supply and salary limitations.

**MENTAL HEALTH**—Due to program expansion, our State Board has approved changing the Mental Health Section to Division status under a qualified psychiatrist, to become effective as soon as such a director is available.

During 1960 the number of mental health clinics remained at eleven (11) and these held over thirty-eight thousand (38,000) interviews with 5,446 patients. Fifty-two per cent of these patients were children under fourteen years of age. Five additional counties established evaluation, referral and consultation services, an increase from three in the preceding year.

The professional staff in these programs increased by forty-six per cent to now consist of twenty-three psychiatrists, twenty-four clinical psychologists, twenty-six psychiatric social workers, one epidemiologist and one remedial reading specialist. As rapidly as feasible, we are working toward having our eighty public health physicians and 550 graduate nurses become as effective in decreasing mental and emotional disability as they have been against communicable diseases. Consultation services were continued to doctors, ministers, nurses, schools, courts, industries, social workers and other groups or agencies.

#### EPIDEMIOLOGY DIVISION

FRED T. FOARD, M.D., Director

In the tuberculosis control program, we are operating five mobile X-ray units, with one held in reserve. Follow-up activities have improved over the past year under the leadership of two technicians. Seventy-three counties are served by chest clinics, which are attended by qualified chest specialists. This is an increase of six chest clinics during calendar 1960 and there were 168,000 persons X-rayed by our mobile X-ray units, and 32,000 miniature films were read in the central office for 12 other counties which have their own units.

Nineteen laboratory-confirmed cases of animal rabies were reported from four counties,—a record low. Also, the number of human antirabic treatments dispensed by the Laboratory Division to physicians also reached a new low of 155 complete treatments, indicating progress in the field of veterinary public health and related areas.

**COMMUNICABLE DISEASE**—There was a striking increase in infectious hepatitis with 577 cases being diagnosed as compared with 118 in 1959. Confined largely to children of school age, the number of cases was in keeping with the increase shown for the United States.

In contrast with the 1959 poliomyelitis experience when 313 cases were seen, the 1960 experience showed a sharp drop to 85 cases. Of this number, 64 were paralytic in type as compared with 270 in the previous year. Four persons died. Approximately three-fourths of the paralyzed individuals had received less than three doses of Salk vaccine. Total inoculations were 4,470,535 from 1955 to December 31, 1960 and for 1960 alone 486,123 with 304,759 for those under 7 years of age.

The number of cases of diphtheria was approximately the same as in the previous year—twenty—with twenty-two in 1959. Continued emphasis on immunization should reduce the case load still further.

Of special interest was the third epidemic of Asian influenza which occurred in the spring. There was an increase in the over-all death rate due to deaths from pneumonia and influenza and diseases of the heart and blood vessels.

State personnel investigated a large number of communicable disease outbreaks.

**OCCUPATIONAL HEALTH**—We had a very busy year in occupational health and in radiation control.

1. In conjunction with the Governor's Council on Occupational Health, our Section Chief, Dr. W. L. Wilson, had a key part in preparation, publication and distribution of "Better Occupational Health for North Carolina" which is widely acclaimed.
2. Implementation of responsibilities under the 1959 State Atomic Energy Act.
  - (a) Forms for voluntarily registering sources of radiation were distributed to some 6,000 physicians, dentists, veterinarians, and hospital administrators.
  - (b) A positive State Radiological Health Program has been designed and its implementation begun.
  - (c) The State Radiological Emergency Team was organized and equipped, has had one simulated incident test and responded promptly to Wayne County for the crash of a B-52 bomber carrying nuclear weapons.
  - (d) A statewide alerting, communications and reporting system involving all police departments, and all sheriffs departments has been superimposed upon the State Highway Patrol system previously developed between the Chief, State Radiological Emergency Team and the Director, Enforcement Division, State Highway Patrol.
  - (e) Extremely close liaison has been developed with the Atomic Energy Commission and the Public Health Service to insure coordination and full utilization of all federal-state resources in critical emergencies.

3. In cooperation with the University of North Carolina School of Public Health, conducted Seventh Annual Radiological Health Seminar and assisted in establishing graduate training program in radiological health.
4. In conjunction with the Department of Engineering, North Carolina State College, assisted in presenting the Third Annual Industrial Ventilation Conference attended by participants from Massachusetts to Florida and as far west as Ohio.
5. Sponsored and obtained from outstanding industrial, professional, government, and educational leaders manuscripts which will go to make up the North Carolina July issue of American Medical Association's Archives of Environmental Health with a stimulating foreword by Governor Terry Sanford.

**PUBLIC HEALTH STATISTICS**—A committee of the Medical Society worked with the State Board of Health and statistical staff and the North Carolina Hospital Association to complete and publish a report entitled "North Carolina Hospital Discharge Study". The State Board of Health provided the punching, tabulation, and public health statistical services which were required in order to accomplish the objectives of the study:

1. Causes of hospitalization by age and color;
2. Per diem charge, length of stay, and total charge for hospitalization;
3. Sources of payment, such as patient or family, insurance, or governmental. Discharge data from 72 general hospitals on 28,000 patient records covering one week in each seasonal quarter involving 183,000 patient days at a total charge of \$4,300,000 were compiled and tabulated. This is the first such study of this magnitude ever done in this state.

Statistical services were furnished the following outside agencies and organizations for various studies conducted by them:—Cornell Auto Crash, Bowman Gray, Duke Medical School, University of North Carolina (several projects), Vocational Rehabilitation, Motor Vehicles, Motor Pool, Agriculture, Public Instruction, N. C. Cerebral Palsy Association, Wake County Premature Study, Personnel Department, Hospitals Board of Control and the State Medical Society Study Committees on Maternal Health, Perinatal Mortality, Child Health and Anesthesia.

#### **HOME AND FARM ACCIDENT PREVENTION:**

1. Assisted in establishment of two additional Poison Information Centers (Charlotte, Mt. Airy) in addition to the three already in operation (Durham, Wilmington, Jacksonville).
2. Followed up on studies of drownings, accidental deaths among school-age children and mortality due to fires and explosions.
3. Continued cooperation with Rural Safety Councils, Teachers' Workshops, and Off-the-Job Accident Prevention Councils.
4. Promoted staff education and in-service training of State and local cooperating agencies.

There was a rise of infectious syphilis reported with a total of 13,052 venereal disease cases and 854,433 serologic tests by state, county and other approved laboratories.

### ADMINISTRATIVE SERVICES DIVISION

CHARLES L. HARPER, M. S. P. H. Director

A greater amount than usual of time, planning and effort was put into preparations for budget presentations to the Advisory Budget Commission and the Joint Appropriations Committee of the 1961 General Assembly, particularly by Dr. Jacob Koomen and Mr. Charles Harper. Recommendations made by the Commission and the serious consideration being given now by the Committee are encouraging.

A Travel Manual was adopted during the year to consolidate and summarize necessary policies and procedures for official travel of departmental employees.

A carefully prepared Biennial Report was published.

The Film Library supplied well over 17,000 requests which was an increase of nearly 2,000 over the previous year.

An Editorial Board was named for the Health Bulletin and several changes, which we hope will be improvements, were made in this publication.

### GENERAL COMMENT

Many items of continuing conjoint concern have called for attention since our last meeting, such as:

1. Fragmentation of medical and health services with favoritism toward non-medical leadership—illustrated by transfer of hospitalization funds of Medical Care Commission to Welfare Department by present General Assembly with pay-off in higher federal support ratio. This subtle technic will probably not stop with one quick success toward welfare control.
2. Medical plans for aged—national and state legislation and implementation.
3. Two White House Conferences—with planned adverse publicity designed to discredit the medical profession by certain highly aggressive groups.
4. National Committee Study Reports with recommendations proposing sweeping changes—Bayne-Jones, Cohen, Bane, and Jones, for example.
5. Continuing activities by a few physicians, particularly some in private practice to alienate other medical doctors rather than to unify medical leadership and support.
6. A growing misinformed segment of the public increasingly interprets medical leadership and guidance as resented medical dictation—and

the general public will determine certain trends with or without appropriate information or medical leadership and guidance.

7. We say the success of voluntary prepayment plans for hospitalization and medical care lessens pressures toward compulsory systems, but we hasten the pricing of these voluntary plans out of the market by excessive tests by X-ray and in the laboratory and excessive hospitalization for convenience. A few bright areas in the other direction are encouraging.
8. Why in the midst of plenty, health, and good living is there growing dependence, misery, hunger and destitution? Are palliatives and handouts the best course toward alleviation and improvement? What should or can the medical profession do, which we are not now doing, to correct this socio-economic problem? Our recognized understanding and appreciation, here again, are basic for our communication with those whom we serve.

Respectfully submitted,  
J. W. R. Norton, M.D.  
State Health Director

n/e

## CONJOINT SESSION REPORT, 1962\*

By JACOB KOOMEN, M.D., M.P.H.\*\*

In the report of the North Carolina State Board of Health to the Conjoint Session of 1962, it seems appropriate to discuss poliomyelitis, measles, and infectious hepatitis in view of the current progress made in control. Poliomyelitis, a dread disease of the present century and the latter portion of the nineteenth century, is now near control. With the agents at hand for immunization, eradication can be considered. Measles, appearing in epidemics every two or three years, ranks high as a cause of morbidity, affecting almost exclusively children of school and pre-school age. Until recently, no agent for active immunization was available. Experimental studies now in progress point the way to control of this disease. The third disease to be discussed, infectious hepatitis, though known since ancient times, has only relatively recently become a clinical and public health problem of great magnitude. Much remains to be learned in the clinical, laboratory, and epidemiological aspects of this disease before control can be expected. It is to be anticipated that some of these aspects will be elucidated in the near future.

Table I presents data relative to numbers of cases and paralytic status of poliomyelitis in North Carolina for the period 1955-1961. Prior to 1955, paralytic and nonparalytic cases were not distinguished or were incompletely distinguished. In 1955 an extensive poliomyelitis surveillance program was initiated in cooperation with the Communicable Disease Center. From that date information relative to immunization status, results of virus isolation studies, and paralytic status are complete.

By the standards of the present day, relatively large numbers of cases of paralytic disease were seen in 1955 and 1956. Two years in which few cases were seen followed. In 1959 a severe epidemic occurred.<sup>1</sup> Two hundred and seventy paralytic cases were reported. Several features of the 1959 outbreak are worthy of mention. Disease was not evenly distributed over the State but occurred in rather sharply circumscribed, localized outbreaks. Incidence of the disease corresponded closely with failure to receive an adequate course or indeed any Salk poliomyelitis vaccine. In some outbreaks the non-white population showed a greater incidence of disease than the white, a phenomenon observed for the first time and in keeping with the lower incidence of adequate immunization to poliomyelitis. Three of four military installations reported outbreaks among personnel and their dependents. The two years that followed, 1960 and 1961, showed a sharp reduction in paralytic cases.

Last year only nine paralytic cases were reported. The nine cases reflect, it is believed, the lowest incidence of paralytic disease seen in North Carolina since poliomyelitis became a disease of importance.

\* Presented before the Conjoint Session, Medical Society of the State of North Carolina, and the State Board of Health, Raleigh, May 9, 1962.

\*\* Assistant State Health Director, N. C. State Board of Health, Raleigh

Table II shows numbers of cases by age and vaccination status for 1961. Four received no vaccine. Four patients had received one or two doses of vaccine. As in prior experience, the largest number of individuals were seen in the 0 to 4 age range. Data obtained nationally and in North Carolina indicates that the 0 to 4 age group is among the most poorly immunized, while those in the school age group are among the best immunized.

While certain irregular cyclic events occur in poliomyelitis reflecting high and low incidence, the great progress in control is largely attributable to the widespread use of Salk vaccine. Failure to achieve full immunization, especially in the 0 to 4 age group generally and in certain non-white groups, was reflected in the occurrence of cases in that age range. Seven years of Salk formalin-inactivated vaccine usage has amply demonstrated its effectiveness in control of this important disease. The merits of the vaccine, and its advantages and disadvantages, are well known to each of you and will, therefore, not be discussed further.

With the announcements in the summer of 1961 that types I and II of Sabin oral-live vaccine had been licensed for use and the subsequent licensure of type III in spring of 1962, another important immunizing agent to poliomyelitis became available.<sup>2</sup> This vaccine, its efficacy well-demonstrated in the United States and abroad, offers certain advantages over formalin-inactivated poliomyelitis vaccine. Large numbers of individuals can be easily immunized in the field because syringes and needles are not required. This eliminates the need for many time-consuming procedures and sterilization equipment. The vaccine is pleasant to take. It is hoped that many who rejected Salk vaccine because of the necessity for injection will accept Sabin oral vaccine. Protection to poliomyelitis for the specific type follows quickly the taking of oral vaccine. Since oral vaccine administration is believed to follow the natural route of infection, local immunity of the intestinal tract is achieved, preventing subsequent natural infections and transmission of poliomyelitis viruses of the wild strains to other individuals. The vaccine is low in price, not only in its initial cost but as indicated above, because the cost of injection is saved. It remains to be determined whether oral vaccine will produce life-long immunity, but is a possibility. Both vaccines will in the future have a useful role in the prevention of disease. The role of each remains presently to be determined.

Certainly with the "poliomyelitis season" about to begin this is no time to abandon Salk vaccine. This is the time to urge its vigorous use to reach those in the susceptible groups and to reinforce, when necessary, the immunization of those previously immunized. Fall, winter, and spring are the recommended times to use Sabin vaccine—the times when little interference to infection may be anticipated from the other enteroviruses which may prevent "take" of the vaccine.

Present schedules require that type I oral poliomyelitis vaccine be given first. Six weeks thereafter, type III is to be administered and six weeks later, type II follows. In this way protection can be achieved to the three types of poliomyelitis virus. With achievement of immunization of all in the susceptible age groups by means of Salk vaccine or of a sufficient number to prevent circulation of wild strains of poliovirus by Sabin vac-

cine, it may be expected that poliomyelitis will diminish further and perhaps disappear as an important clinical and public health problem.

Measles remains an important childhood disease. Most adults have contracted infection as children—approximately 90% of our population has suffered from measles at the time the age of 12 is reached. Many physicians have accepted contraction of measles as a part of childhood, as a relatively mild disease, and as one from which few sequelae might be expected. That encephalitis and death did occur was known to all, however, but the picture of a mild disease dominated the thinking of many workers in the communicable disease field. One to five thousand cases of measles are reported each year in North Carolina. This does not reflect the true numbers of cases since many are not seen by physicians and therefore not reported. One measure of the severity of the disease is shown in the death toll. Last year (1961) 23 individuals died of measles. Only one patient died of acute poliomyelitis.

Some protection against this disease, once exposure was known to have occurred, was available. Gamma globulin supplied to us through the generosity of the American Red Cross has long been useful in modifying or preventing measles. Active immunization became a possibility only after adaptation of measles virus to tissue culture. We must express our thanks to Drs. John F. Enders and T. C. Peebles for isolation and cultivation of this agent.<sup>3</sup> Following adaptation of the virus to chick cells and demonstration of attenuation, the possibility of immunization trials occurred.<sup>4-5</sup> After appropriate study, it was determined that the inoculation of attenuated virus produced antibody in a high proportion of previously antibody negative individuals. The attenuated agent produces, following a subcutaneous or intramuscular injection, fever of about one to three days' duration in a high proportion of those inoculated.<sup>6</sup> About 45% of the inoculated individuals develop a pink, macular, non-itching, discrete rash usually limited to the upper trunk, neck and face. While rash and fever are the two major features seen following inoculation, a very few children display irritability, loss of appetite, cough, conjunctivitis, inflammation of the upper respiratory tree, and abdominal discomfort. Approximately 95% of the children receiving a single dose of the protective vaccine will demonstrate antibody. Field trials indicate a high degree of protection under conditions of natural exposure. The principal drawback to the use of this vaccine is that clinical illness is produced. The illness, however, is one of unusual mildness. Most children are not sufficiently ill to require bed rest.

In an effort to avoid illness following inoculation, a number of approaches are being tried. One combines the use of gamma globulin, so effective in naturally occurring measles,<sup>7</sup> to prevent symptoms, and another involves use of an alum-precipitated, concentrated, inactivated vaccine.<sup>8</sup> The scarcity and cost of gamma globulin may limit usefulness of this approach to measles immunization. Some trials using formalin-inactivated vaccine indicate great promise for this type of vaccine. A third approach involves injection of killed vaccine followed by inoculation of living vaccine in the expectation of producing a solid, long lasting immunity without significant clinical illness.<sup>9</sup>

There is now within grasp a measles vaccine promising control.

Infectious hepatitis was made a reportable disease in North Carolina in 1952. This is about the time most states first made infectious hepatitis reportable. Two epidemic periods have been seen. The first occurred in 1953. North Carolina and the United States are now in the midst of the second epidemic which began in 1960, continued to a high level in 1961 and will, in 1962, perhaps equal or exceed the peak seen in 1961. While a considerable amount of new data are being added in the epidemiological studies of infectious hepatitis, much remains to be learned. This year two outbreaks of hepatitis traceable to oysters and clams were studied in this country.<sup>10</sup> Several small outbreaks related to contact with chimpanzees and wooly monkeys were reported.<sup>11</sup> The bulk of the disease, it is believed, is related to close person to person contact with a high proportion of the recognized illness occurring in the school-age group. In the pre-school age group, infectious hepatitis occurs but is frequently of mild form, often without jaundice. Approximately 25% of the reported cases of infectious hepatitis recorded in North Carolina occur in adults, and like poliomyelitis when seen in the adult years, tends to be a severe disease.

Commonly, case incidence is highest in winter and late spring. However, in epidemic years the incidence tends to be high in each month of the year and the decline in cases expected during the summer months is not seen. Attack rates are approximately equal for both sexes though males slightly outnumber females. It may be postulated from the excellent protection conferred by use of gamma globulin and the relatively low attack rate among adults that most adults; i.e., contributors to gamma globulin pools, are immune.

Data to date on the nature of the agent has been derived almost exclusively from experiments in volunteers or epidemiological observations. Some information previously referred to is of interest here. In particular, the frequency with which the disease was transferred in this past year from chimpanzees and wooly monkeys to veterinarians and others associated in their care. It seems clear that these animals can serve as natural hosts for the virus. Tissue culture, so useful in isolation of the many viruses adapted to man and to animals, has to now proved unsuccessful in the eyes of many observers in bringing to light the virus of this disease, though from time to time reports in the literature indicate isolation of this agent.

A portion of the Annual Meeting (1961) of the Public Health Association was devoted to presentation of data concerning isolations of agents from cases of infectious hepatitis. As pointed out earlier, while an agent or agents may have been isolated, many observers believe this area requires further study before acceptance of the data. Following the isolation of the agent and reproduction in tissue culture, it may be anticipated that a vaccine will be produced for field trial use and, if successful in disease prevention, will subsequently bring about broad scale usage. Data acquired from the use of gamma globulin would indicate that a vaccine which induces antibody formation would confer protection. Such a vaccine would be most important in control since in this past year 2,194 cases were reported in North Carolina, attesting to the epidemic level and attesting

to the high morbidity importance of the disease since infectious hepatitis perhaps, as few acute communicable diseases, produces long periods of disability. It has recently been reported in the press that progress is being made in growing liver tissue in tissue culture. In prior attempts to cultivate liver tissue the usual end result was connective tissue. If it is true that liver cells have been reproduced in regular cell lines, there is offered the hope that the virus can be grown therein. This would give us appropriate laboratory media for isolation of the agent and a direct approach towards correctness of diagnosis, epidemiological follow-up, and above all, possibly permit production of a vaccine.

The three diseases, poliomyelitis, measles, and infectious hepatitis, have been reviewed in the light of recent developments in control. As has been noted, within our grasp is elimination; that is, eradication of the disease poliomyelitis. Coming within reach is the possibility of the control of measles and possibly its eradication as well. In the case of infectious hepatitis, we are much less far advanced but beginning steps are being made. It may be hoped that within the next decade sufficient information will be at hand to control this important cause of morbidity as well.

TABLE I  
Cases of Paralytic Poliomyelitis and Incidence per 100,000 Population  
North Carolina  
1955-1961

| Year | Number Cases | Rate per 100,000 pop. |
|------|--------------|-----------------------|
| 1955 | 179          | 3.9                   |
| 1956 | 179          | 3.9                   |
| 1957 | 52           | 1.2                   |
| 1958 | 37           | 0.8                   |
| 1959 | 270          | 6.0                   |
| 1960 | 64           | 1.4                   |
| 1961 | 9            | 0.2                   |

TABLE II  
Paralytic Poliomyelitis Case Distribution by Age and Salk  
Vaccination Status  
North Carolina  
1961

| Age   | Cases by Number of Doses of Vaccine |   |   |   |   | Total |
|-------|-------------------------------------|---|---|---|---|-------|
|       | None                                | 1 | 2 | 3 | 4 |       |
| 0-4   | 3                                   |   | 2 |   |   | 5     |
| 5-9   |                                     | 1 |   |   | 1 | 2     |
| 10-14 |                                     | 1 |   |   |   | 1     |
| 15-19 |                                     |   |   |   |   |       |
| 20+   | 1                                   |   |   |   |   | 1     |
| Total | 4                                   | 2 | 2 |   | 1 | 9     |

## REFERENCES

1. Darter, R. W.; and Koomen, J. Survey of Poliomyelitis in North Carolina, 1959. *N. C. Med. J.* 22:339-346 (August), 1961.
2. Terry, L. L. Recommendation of the Public Health Service for the Use of Poliomyelitis Vaccines for the 1962 Poliomyelitis Season. Public Health Service Publication, March 28, 1962.
3. Enders, J. F.; and Peebles, T. C. Propagation in Tissue Cultures of Cytopathogenic Agents from Patients with Measles. *Proc. Soc. Exper. Biol. and Med.* 86:277-286, 1954.
4. Katz, S. L.; Milovanovic, M. V.; and Enders, J. F. Propagation of Measles Virus in Cultures of Chick Embryo Cells. *Ibid.* 97:23-29, 1958.
5. Enders, J. F.; Katz, S. L.; and Medearis, D. N., Jr. "Recent Advances in Knowledge of the Measles Virus." In *Perspectives in Virology*. Edited by M. Pollard. New York, N. Y.; Wiley, 1959, chapter 7, pp. 103-120.
6. Katz, S. L.; Enders, J. F.; and Holloway, A. The Development and Education of an Attenuated Measles Virus Vaccine. *Supplement, J. P. H.* 22:5-10, 1962.
7. McCrumb, F. R., Jr.; Bulkeley, J. T.; Hornick, R. B.; Snyder, M. J., and Togo, Y. Gobulin-Modified, Live Attenuated Measles-Virus Vaccination. *Amer. J. Dis. Child.* 103:350-353, 1962.
8. Karzon, D. T.; Winkelstein, W., Jr.; Jenss, R.; Gresham, G. E.; and Mosher, W. E. Field Trial of Inactivated Measles Vaccine. *Amer. J. Dis. Child.* 103:425-426, 1962.
9. Henderson, D. A. Personal Communication
10. Henderson, D. A. Personal Communication
11. Held, J. R. Personal Communication

## BIENNIAL REPORTS

### State Health Director

Dr. J. W. R. Norton has performed his duties as State Health Director in addition to his service as Secretary-Treasurer of the State Board of Health, reported elsewhere in this biennial report of the agency's activities. He is also chairman of the Committee for Postmortem Medicolegal Examinations, reported elsewhere.

As State Health Director, Dr. Norton has engaged in the executive duties of that office but has maintained many contacts of a liaison nature. He has maintained contact with the United States Public Health Service, with other State departments of public health, and with all other agencies, both official and voluntary, whose activities and purposes have a bearing on the health of the people in North Carolina. There has been an increase in the number and activity of the voluntary health organizations in recent years, thus increasing the importance and complexity of these contacts.

General overall direction has been given by the State Health Director to all divisions of the State Board's work. In addition, he has been active in the affairs of those organizations with which the State Board of Health is affiliated.

In addition to his official duties at the State Board office, the State Health Director has attended conferences and conferred with officials on health matters in many parts of the State. Membership on national committees of health organizations has entailed a number of necessary meetings in various parts of the nation. Out-of-State meetings usually attended by the State Health Director include the American Public Health Association, the State and Territorial Health Officers' Association, the Southern Branch of the American Public Health Association, and the American College of Preventive Medicine. He has served as president or chairman of major committees in these organizations.

Reports of the activities of the seven divisions of the State Board's work follow:

## ADMINISTRATIVE SERVICES

The Administrative Services Division maintained the same organizational arrangement as during the previous biennium. Budgeting and accounting, Personnel, Public Relations, Film Library, Public Health Library, Supply and Service, and Central Files made up the unit activities.

The Director, in addition to coordinating the activities carried out by the above units, provided administrative assistance to the State Health Director and the professional staff.

Significant developments during the biennium included the following:

### 1. *Departmental Appropriations*

Total appropriations for public health in North Carolina for the past biennium increased by \$3,148,949 over the previous two-year period. Of this increase, the major portion was local appropriations of approximately \$2,000,000, state appropriations of approximately \$750,000, and the balance was in federal grants. The following table shows the specific amounts for the two bienniums:

|           | Total        | State       | Federal     | Local        | Departmental Receipts |
|-----------|--------------|-------------|-------------|--------------|-----------------------|
| 1958-1960 | \$23,827,491 | \$6,205,824 | \$5,307,708 | \$11,781,059 | \$532,900             |
| 1960-1962 | \$26,976,440 | \$6,935,914 | \$5,829,842 | \$13,728,281 | \$482,403             |
| Increase  | \$ 3,148,949 | \$ 750,090  | \$ 522,134  | \$ 1,947,222 | —\$ 50,497            |

The 1961 State Legislature increased appropriations to the State Board of Health from \$5,989,913 for the 1959-61 biennium, to \$7,544,790 for the 1961-63 biennium, an increase of approximately 26 per cent. This was the largest increase in the past decade. For the most part, they were for the purpose of raising the level of state support for local health departments and for community mental health centers.

### 2. *Personnel Operations*

There was a complete turnover in the Personnel Office during the biennium. The former Personnel Officer, Mrs. Isabel Henderson, retired after a lengthy illness. Mr. Clark Edwards, previously employed in private industry, was appointed to succeed Mrs. Henderson in May 1961. A Personnel Assistant position was upgraded to permit the appointment of an Assistant Personnel Officer. This position was also filled in 1961. With these changes, the Department has been in a position better to meet the needs for personnel services in the areas of recruitment, promotions, job studies, reclassifications, salary surveys, and other administrative functions. Plans are under way for initiation of programs aimed at staff training and development.

### 3. *Realignment of Accounting Procedures*

A considerable amount of work was devoted to a study of departmental accounting procedures within the budget office and within the program

divisions. This revealed the desirability of transferring much of the responsibility for detailed accounting, as carried out in several divisions, to the central budget office. A reduction in the number of clerical accounting personnel, as well as greater efficiency of operations, are expected as a result of these changes.

#### 4. Establishment of Administrative Assistant Positions

In an effort to relieve our medical directors of administrative detail work, the Personnel Department was asked to approve an administrative assistant position for the Personal Health and Oral Hygiene Divisions. The individuals in these positions will assume responsibility for budgets, activity reports, personnel matters, and related work which previously required the personal attention of the Division director. These changes will enable the Directors to devote more time to planning, field consultation, and supervision of professional activities.

#### 5. Manual on Budgeting and Accounting

Through the assistance of the U. S. Public Health Service, a manual of procedure for budgeting and accounting personnel was partially completed during the biennium. The purpose of the manual is to facilitate training of new budget office personnel and to maintain a reference for uniform procedures in preparation of various fiscal documents and reports.

Detailed reports of individual sections follow:

### BUDGET OFFICE

|                                |        |
|--------------------------------|--------|
| No. of Purchase Orders Written | 1,854  |
| No. of Vouchers Written        | 19,933 |

### BIENNIAL BUDGET

| Fiscal Year and Purpose                       | Total               | State Appropriation | Federal Funds      | Local Receipts   | Local Appropriations |
|---|---------------------|---------------------|--------------------|------------------|----------------------|
| <b>Fiscal Year Ending June 30, 1961:</b>      |                     |                     |                    |                  |                      |
| Local Units:                                  |                     |                     |                    |                  |                      |
| Health Departments (80)                       | \$ 7,644,033        | \$1,132,000         | \$ 236,880         | \$ —             | \$ 6,275,153         |
| Mental Health Centers (10)                    | 652,923             | 145,000             | 129,914            | —                | 378,009              |
| Total—Local Units                             | 8,296,956           | 1,277,000           | 366,794            | —                | 6,653,162            |
| Other   | 4,336,296           | 1,804,397           | 2,290,410          | 241,489          | —                    |
| <b>Total—Fiscal Year Ending June 30, 1961</b> | <b>12,633,252</b>   | <b>3,081,397</b>    | <b>2,657,204</b>   | <b>241,489</b>   | <b>6,653,162</b>     |
| <b>Fiscal Year Ending June 30, 1962:</b>      |                     |                     |                    |                  |                      |
| Local Units:                                  |                     |                     |                    |                  |                      |
| Health Departments (83)                       | 8,269,677           | 1,450,720           | 247,069            | —                | 6,571,888            |
| Mental Health Centers (13)                    | 925,783             | 307,909             | 114,643            | —                | 503,231              |
| Total—Local Units                             | 9,195,460           | 1,758,629           | 361,712            | —                | 7,075,119            |
| Other   | 5,147,728           | 2,095,888           | 2,810,926          | 240,914          | —                    |
| <b>Total—Fiscal Year Ending June 30, 1962</b> | <b>14,343,188</b>   | <b>3,854,517</b>    | <b>3,172,638</b>   | <b>240,914</b>   | <b>7,075,119</b>     |
| <b>Total for the Biennium</b>                 | <b>\$26,976,440</b> | <b>\$6,935,914</b>  | <b>\$5,829,842</b> | <b>\$482,403</b> | <b>\$13,728,281</b>  |

### CENTRAL FILES

The Central Files operations continued to expand and adjust with the increasing and changing program activities. The centralized control of records establishes the responsibility for recording, protecting, and filing the official records and their findings when needed. It controls the systematic retirement of records to storage and the disposal of those no longer of administrative, historical, research or legal value. It establishes practical standards for procedures and operations, file arrangements, equipment and supplies.

During this period, 451,245 records were received for filing, and 59,649 searches for material and information were made. Emphasis was given to improving the accuracy of operations and to assisting in working out record keeping problems with staff generally.

### SUPPLY AND SERVICE

Increased activity from new and accelerated programs of the State Board of Health were reflected in greater demands for service from this section. Number of forms and other materials printed and number of educational materials distributed are but two indices of workload increase, as indicated below:

|   | 1958-60   | 1960-62   | Inc.      |
|---|-----------|-----------|-----------|
| Multilith copies reproduced                   | 8,287,588 | 9,744,966 | 1,457,378 |
| No. Educational materials & forms distributed | 4,324,015 | 4,468,885 | 144,870   |

### FILM LIBRARY

The Film Library experienced considerable growth during the biennium as compared with the previous two-year period. A new record of 43,159 films were distributed which was 12,018 more than the record distribution of 31,141 for the previous biennium. Approximately 200 worn and outmoded films were replaced, with the addition of 89 new films. It was still necessary to deny 2,841 requests due to lack of films or lack of sufficient prints of films requested.

The 1961 Legislature appropriated sufficient funds to replace all ten-year old films, and more than \$40,000 was available during the report period to replace, repair, and purchase these new films.

Film catalogues were distributed to 7,000 borrowers throughout the State.

Thirty motion picture projectors were purchased to replace worn and obsolete models on loan to local health departments.

With this increased volume of film use, it was necessary to employ two additional personnel for the Film Library, bringing to six the number of full-time employees in this unit.

### PUBLIC RELATIONS

Citizens of North Carolina have shown a growing understanding of and appreciation for public health during this biennium. Gleanings from daily and non-daily newspapers across the State have reflected this. Conversa-

tions with leaders in various areas of the State's life have also borne this out. Such a favorable attitude over long periods of time can only come from a health job well done and some adequate telling of the health story both from person to person and through public news media.

Based upon the integrity of the public health program and personnel at work in North Carolina, every available means has been used to make the public aware of these health services. The activities of the seven divisions of the State Board of Health and of the local health departments have been made the subject of many articles appearing in newspapers throughout the State and of radio programs.

The Public Relations Officer has arranged for television and radio programs and has made addresses at meetings emphasizing public health and in meetings with related purposes. He has represented the State Board at a number of statewide conferences and some national meetings. He has also given frequent counsel to State and local staff members in the area of public relations. The Public Relations Office produces a bi-weekly Newsletter for State Board staff interest and use.

As Editor of *The Health Bulletin*, the monthly official State Board publication now in its 77th year, he has the counsel of an eleven-member Editorial Board representing many facets of the public health picture. This publication has sought to present subjects of importance to public health in a manner and language interesting to the general public. Its present mailing list numbers 47,000.

#### MEDICAL-PUBLIC HEALTH LIBRARY

The Medical and Public Health Library served considerably more people during the two-year period ending June 30, 1962, than during any previous biennium since the Library was established in 1954. The increases over the previous biennium are as follows:

|                   | 1958-60 | 1960-62 |
|-------------------|---------|---------|
| Visits to Library | 9,333   | 10,620  |
| Volumes Loaned    | 9,222   | 10,148  |

The purchase of books shows a decline from 417 to 293. This is governed more by availability of funds than by recognition of need for acquiring books.

The Librarian continued the issuance of "Library Notes," containing references to added books or periodicals which are believed to have particular interest. These "notes" were extended to personnel of local health departments during the biennium. He also continued the practice of assisting persons in preparation of papers, reports, and bibliographies, and in acquiring materials not available in the Department's library.

#### PERSONNEL

A new salary schedule was adopted for the state staff effective July, 1960, and legislative increases were implemented for July, 1961.

Through the leadership of the Merit System, a new compensation plan raising salaries generally was adopted for the local health departments effective July 1, 1961, on a permissive basis, with the plan becoming mandatory a year later. Procedures were established to permit modification of the plan for those counties that could provide adequate proof that the ranges adopted were beyond their fiscal policy or financial ability.

Changes in the classification and compensation plan, both state and local, as well as other personnel actions, are as follows:

|   | LOCAL   |         | STATE   |         |
|---|---------|---------|---------|---------|
|   | 1958-60 | 1960-62 | 1958-60 | 1960-62 |
| <b>CLASSIFICATION</b>                                 |         |         |         |         |
| New .....   | 5       | 8       | 10      | 13      |
| Revised .....   | 18      | 9       | 45      | 18      |
| Deleted .....   | 0       | 6       | 21      | 24      |
| <b>SALARY RANGES REVISED</b> .....                    | 2       | 19      | 44      | 16      |
| <b>PERSONNEL ACTIONS</b>                              |         |         |         |         |
| Appointments & Reinstatements .....                   | 608     | 690     | 217     | 223     |
| Separations .....                                     | 596     | 589     | 252     | 227     |
| Reclassifications .....                               | 294     | 315     | 84      | 90      |
| Salary Increases .....                                | 1706    | 1519    | 459     | 479     |
| Employees certified as permanent .....                | 809     | 817     | 91      | 107     |
| <b>POSITIONS</b>                                      |         |         |         |         |
| Vacant as of June 30 .....                            | 57      | 34      | 45      | 38      |
| Budgeted as of June 30 .....                          | 1316    | 1386    | 407     | 416     |
| <b>TOTAL EMPLOYEES ON PAYROLL AS OF JUNE 30</b> ..... | 1259    | 1352    | 362     | 378     |

## DIVISION OF EPIDEMIOLOGY

The Division of Epidemiology, through the biennium 1960-1962, has continued to operate seven sections in addition to the general administration of the Division. During the biennium, no vacancies have occurred in the positions of Section Chiefs, with the exception of the position of medical director (Section Chief) of the *Venereal Disease Control Section*. In 1961 this Section Chief resigned to become Assistant Medical Director of the Forsyth County Health Department at Winston-Salem, N. C. A well-qualified, experienced layman has been detailed by the Public Health Service to this Section and is, at this time, handling the duties of the Section Chief very capably.

Throughout the biennium all Sections have operated under the immediate direction of well-qualified, experienced Section Chiefs. A very close and cooperative working relationship exists between the several Section Chiefs and other Section Chiefs as well as with the Division Director and with other divisions of the State Board of Health.

Perhaps the greatest expansion during the biennium has occurred in the *Occupational Health Section*, both as to staff members employed and as to field activities carried out. The Medical Director of this Section, who is also the Section Chief, has immediate direction not only of the Occupational Health Program of this Department but also of its Radiological Health Program. During the biennium the Occupational Health Nursing Consultant resigned her position and, to date, this position has not been filled. Otherwise, the staff has materially increased during this report period (see special Section report).

The most noteworthy item of expansion occurring within the *Public Health Statistics Section* during the biennium was the initiation, effective January 1962, of central registration of marriages occurring within North Carolina. This service is, of course, combined with the divorce registration unit already in existence in this Section. The 1961 General Assembly enacted legislation requiring central registration of marriages in this state. This is regarded as a great step forward in maintaining vital records for North Carolina.

During the biennium, requests for statistical services have greatly increased the work load in the Public Health Statistics Section. In order to meet the many requests for special studies and also furnish the services required by law, the administrative staff and the Central Tabulating Unit have been required to perform considerable overtime work. Because of this extra work load, the Central Tabulating Unit has, in turn, had to turn over to the Division Director's office (which is still operating with only two employees: the Division Director and the Division secretary) the processing of all individual county poliomyelitis vaccination reports for the 100 counties and the City of Rocky Mount into the basic, state-level, crude data from which routine reports must be prepared by the Division Director's office. For several years, the Central Tabulating Unit has processed these reports into basic state-level data for the Division

Director's office in the same manner as it furnishes similar routine services to other divisions in the agency.

In the *Communicable Disease Control Section*, closely connected with the Division Director's office, two administrative changes occurred during this biennium. Effective October 1, 1961, Dr. Jacob Koomen, then Section Chief and an Assistant Director of the Division, became Assistant State Health Director, and effective August 1, 1961, Dr. George Magnus Johnson, Epidemic Intelligence Service Officer with the Communicable Disease Center of the U. S. Public Health Service, was detailed to this Department by the Service for a two-year period. As the position of Chief, Communicable Disease Control Section, has not been filled since Dr. Koomen's promotion, he has continued to supervise Dr. Johnson's work as Field Epidemiologist for this Department. Dr. Johnson will continue in this assignment until June 30, 1963, at which time he will go to another post. He is rendering excellent service in the field of communicable disease control in North Carolina.

No administrative changes have occurred during the biennium in the remaining three sections: *Veterinary Public Health Section*, *Tuberculosis Control Section*, and *Accident Prevention Section*. These sections have continued to maintain a very high level of administrative progress. Detailed reports of the special poliomyelitis vaccination program operating in the Division Director's office and of the Sections within the Division follow.

#### **Poliomyelitis Vaccination Program**

During the biennium ending June 30, 1962, in compliance with the 1959 North Carolina poliomyelitis vaccination law, State-purchased poliomyelitis vaccine, in limited quantity, was distributed by the Laboratory Division of the State Board of Health to North Carolina counties on a quota basis, according to population within the critical birth-through 6-years age group. This continued the policy established in 1959 when the first poliomyelitis vaccine was purchased with an allocation from the State's Contingency and Emergency Fund. Inoculations given with this vaccine were reported to the Division of Epidemiology by the local health departments of the State in accordance with established procedure.

By way of recapitulation, the following table reviews the final poliomyelitis vaccination data for the National Foundation (NFIP) program and Federal program, both of which are now closed, and also summarizes inoculations reported according to first, second, third, and booster inoculation categories under the current (non-Federal) program through 1961. At that point in the biennial report period, the report form was drastically revised (see explanation herein):

| Series of Inoculations Given                          | Under NFIP Program (final report as of NC closing: 10/10/55) | Under Federal Program (final report as of NC closing: 6/30/59) | Non-Federal Current Program (6/1959—1961) | All Programs Totals from 1955 thru 1961 |
|---|--|--|---|---|
| First Inoculations                                    | 223,136  | 1,184,231  | 357,552                                   | 1,764,919                               |
| Second Inoculations                                   | 136,871  | 1,091,587  | 324,294                                   | 1,552,752                               |
| Third Inoculations                                    | *2,254   | 949,520  | 308,536                                   | 1,260,310                               |
| Booster Inoculations                                  | **—  | **—  | 298,567                                   | 298,567                                 |
| Total Inoculations, by program, through December 1961 | 362,261  | 3,225,338  | 1,288,949                                 | 4,876,548                               |

\* Guilford County (2,254 shown above) participated in NC 1954 Salk vacc. field trials as the only NC county that engaged in those field trials.

\*\* Booster records begin with NON-FEDERAL (current) program as Federal vaccine was not permitted to be given for booster inoculations.

**NOTE:** Right-hand column above ("All Programs") represents all programs from NFIP (1955) through December 1961 of current program and represents all age groups given the vaccine. Data in "Non-Federal—Current Program" (second from right-hand column above) represent the closing of data available by first, second, and third inoculations (Boosters are continuing). Effective 1-1-62, the new report form has required data for "Completed Basic Series (3rd Injection)" instead of individual breakdowns for first, second, third inoculations. The new report form also requires reporting of booster inoculations.

ALL INOCULATIONS ARE THOSE REPORTED BY LOCAL HEALTH DEPARTMENTS. THOSE GIVEN BY PRIVATE PHYSICIANS TO PRIVATE PATIENTS ARE NOT REPORTED TO THE STATE BOARD OF HEALTH.

The following table summarizes inoculations given in the NON-FEDERAL program ONLY TO THE BIRTH THROUGH 6-YEARS AGE GROUP; i.e., the *first* table shows such data from the beginning of the program (June 1959) through 1961, set up according to the inoculation categories then in reporting use (first, second, third, booster); however, effective January 1, 1962, with the approval of the State Health Director and the Division Director, the Permanent Records Committee initiated a new reporting procedure which calls for the following age group breakdown: "Under 1 year", "1 through 4 years", "5 and 6 years", "7 through 20 years", and "Over 20 years", reported according to the following two categories: "Completed Basic Series (3rd Injection)" and "Boosters", rather than in the series categories (first, second, third, boosters) previously shown on the report form in use since the beginning of poliomyelitis vaccination record-keeping in N. C. in 1955. For this reason, it is no longer possible (beginning with 1962) to continue the cumulative data previously prepared. Effective, therefore, with January 1, 1962, poliomyelitis vaccination data will be available according to the pattern shown in Table 2 and Table 2-a, also Table 3, which follow immediately after Table 1 shown below:

Table 1

## Birth through 6-years Age Group

From Beginning of Non-Federal Program (June 1959) through 1961

|   |         |
|---|---------|
| First inoculations  | 243,726 |
| Second inoculations   | 228,634 |
| Third inoculations  | 203,813 |
| Booster inoculations  | 126,025 |
| Total inoculations: Birth through 6 years, for period June 1959 through December 1961 | 802,198 |

Table 2

**Inoculation Data for Birth through 6-Years Age Group**  
**January 1-June 30, 1962**

|  |        |
|--|--------|
| Completed Basic Series (3rd Injection) ..... | 35,978 |
| Booster Inoculations .....                   | 42,782 |

Table 2-a

**Inoculation Data for All Ages (includes above group)**  
**January 1-June 30, 1962**

|  |        |
|--|--------|
| Completed Basic Series (3rd Injection) ..... | 45,889 |
| Booster Inoculations .....                   | 74,571 |

It will be observed that several interesting points emerge from the above data, e.g., it would appear that of the total number (45,889) of completed basic series (3rd injection) given to *all ages* for the six-months period January-June 1962, approximately 78.4 per cent (35,978) were given to the important birth through 6-years age group. Also, of the total number (74,571) of booster inoculations given to *all ages* for this same period, approximately 57.4 per cent (42,782) were given to that critical group: birth through 6 years of age.

The following table (Table 3) will show the totals, by age groups, for each category for the six-months period January-June 1962:

Table 3

| Age Group   | Completed Basic Series<br>(3rd Injection) | Boosters |
|---|---|----------|
| Under 1 year  | 9,429                                     | 798      |
| 1 through 4 years   | 15,672                                    | 18,007   |
| 5 and 6 years   | 10,877                                    | 23,977   |
| Total for Birth through 6 years:                                | 35,978                                    | 42,782   |
| 7 through 20 years  | 6,872                                     | 25,996   |
| Over 20 years   | 3,039                                     | 5,793    |
| Grand total for All Ages<br>(Incl. data for birth thru' 6 yrs.) | 45,889                                    | 74,571   |

#### Communicable Disease Control Section

The activities of this Section include: (1) Tabulation of the cases of reportable communicable diseases; (2) Analysis, at frequent intervals, of the data obtained; (3) Preparation and publication of weekly, monthly, and annual reports of communicable diseases in North Carolina; (4) Continuing surveillance pertaining to introduction of "new disease" (e.g., Asian influenza) and recurrence of "old disease" (e.g., smallpox); (5) Serving as an information center for health departments and the public in regard to trends in communicable disease control; (6) Frequent active field investigations of reportable communicable disease; (7) Maintaining liaison with the USPHS—Communicable Disease Center, Atlanta, Ga., and cooperating with them in scientific studies. Continued progress in reduction of cases reported is again noted this biennium; however, notable exceptions to this

decline (e.g., infectious hepatitis) and remarkable advances in the field of virology (especially respiratory and intestinal viruses) indicate the continuing importance of communicable disease control.

Reported cases of poliomyelitis declined remarkably in this biennium. During 1960, 85 cases were reported (64 paralytic type) and in 1961, 19 cases (9 paralytic) were noted. To date in 1962, only two cases of poliomyelitis have been recorded (one paralytic and one non-paralytic). Despite this decline, Salk immunization is vigorously encouraged. Gradual shift to oral (Sabin) vaccine is planned this fall as the safety and efficacy of this vaccine becomes evident.

One of the main communicable disease problems of the biennium was infectious hepatitis. During 1960, 582 cases were noted and 2,194 in 1961. Through June 1962, 1,017 cases have been recorded. The 1961 incidence was the highest in North Carolina since the disease became reportable in 1952. This paralleled the national experience. Since the virus of infectious hepatitis has not been isolated in the laboratory, there are many gaps in the knowledge of this disease. It is known that the illness occurs in six to eight-year cycles. Many of the field investigations and educational activities of the Section centered around this disease. An adult viral hepatitis surveillance program was instituted January 1, 1962. Serum hepatitis case reports show five in 1960, seven in 1961, and three in 1962 through June.

A widespread epidemic of influenza "B" was experienced from late January to mid-March 1962. This epidemic had been "predicted" (influenza is another cyclic disease) and immunization of high risk groups was emphasized in advance of the epidemic. No excess mortality was noted in North Carolina. Once again, a postal card reporting system was instituted and an estimated 130,000 cases were tabulated during one week in early February at the peak of the epidemic. An epidemiologic study was made at Pembroke, North Carolina, where the 1962 epidemic appeared to begin. Preparations are now under way for the predicted winter 1962-63 Asian (A<sub>2</sub>) influenza epidemic.

In 1960, 36 cases and in 1961, 27 cases of encephalitis were reported. Although there are many known causes for this very serious illness (e.g., measles, mumps, smallpox, arthropod or mosquito-borne) the largest percentage of cases is of unknown etiology. During the winter of 1961-62 and the spring of 1962, an unusual number of "encephalitic-like" sudden deaths in children occurred in North Carolina. A study of these cases is now in progress.

Cases of whooping cough, measles, and scarlet fever were in keeping with their known cyclic behavior. Rocky Mountain spotted fever, a tick-borne disease, continued at a relatively stable rate. Most cases are seen among children from May to September.

Only eight cases of tetanus were reported in 1960 and 12 in 1961. Nine of the 1961 cases expired. In response to the seriousness of this easily preventable disease, the State Medical Society, with the cooperation of this Section, carried out a state-wide tetanus immunization program. Only one case of tetanus has been reported since.

Although not a reportable disease, antibiotic-resistant staphylococcal disease continues to be a complicated and important problem. Consultation

services were provided for a number of county hospitals and state institutions in regard to this problem.

Close cooperation is maintained between this Section and the Veterinary Public Health Section in the prevention and control of the zoonoses—diseases transmissible from animals to man. Included are anthrax, brucellosis, rabies, tularemia, and psittacosis.

Each year a number of food-borne illness outbreaks are investigated. Improper food-handling is usually implicated. The Section is cooperating with the USPHS—Communicable Disease Center in a recently established *Salmonella* Surveillance Program.

Diphtheria continued to decline, with 22 cases in 1960 and 12 in 1961.

Nineteen cases of typhoid fever were reported in 1960 and 23 in 1961. One small epidemic of five proved cases occurred during July 1961. The common source was a known carrier of this disease.

All cases of malaria during this biennium were of extra-territorial origin. No cases of smallpox were reported during the biennium.

A case of leprosy, reported in January 1962, was intensively studied. Seven cases had been brought to attention in this state in the past but this is the only individual that presumably contracted the disease within the state.

Given below is a table presenting data relative to the number of cases of the major communicable diseases in North Carolina for the years 1957-1961 and for Jan.-June 1962.

**SUMMARY OF REPORTED CASES OF MAJOR COMMUNICABLE  
DISEASE, NORTH CAROLINA, FOR THE YEARS 1957-1961  
AND JANUARY-JUNE 1962**

| Disease                      | 1957  | 1958  | 1959  | 1960  | 1961  | Jan-June 1962 |
|------------------------------|-------|-------|-------|-------|-------|---------------|
| Diphtheria                   | 49    | 32    | 20    | 22    | 12    | 2             |
| Encephalitis                 | 55    | 53    | 36    | 36    | 27    | 18            |
| Hepatitis                    | 110   | 75    | 118   | 582   | 2,194 | 1,017         |
| Malaria                      | 4     | 6     | 2     | 7     | 5     | 3             |
| Measles                      | 1,960 | 4,590 | 3,391 | 1,417 | 5,094 | 720           |
| Meningococcus Infections     | 112   | 90    | 77    | 83    | 68    | 45            |
| Poliomyelitis                | 238   | 74    | 313   | 85    | 19    | 2             |
| Rocky Mountain Spotted Fever | 37    | 25    | 24    | 18    | 34    | 7             |
| Scarlet Fever                | 1,034 | 1,351 | 1,325 | 1,038 | 930   | 431           |
| Septic Sore Throat           | 47    | 55    | 53    | 60    | 397   | 279           |
| Smallpox                     | —     | —     | —     | —     | —     | —             |
| Tularemia                    | 12    | 12    | 7     | 4     | 10    | 1             |
| Typhoid Fever                | 23    | 17    | 18    | 19    | 23    | 2             |
| Typhus, Endemic              | 5     | 2     | 4     | 1     | 3     | 1             |
| Undulant Fever               | 12    | 7     | 4     | 4     | 8     | —             |
| Whooping Cough               | 161   | 401   | 577   | 111   | 118   | 58            |

**Veterinary Public Health Section**

This Section has the responsibility for planning, developing and administering a state-wide program of veterinary public health and comparative medicine, including the control of diseases of animals transmissible to man. The major activities are carried out through consultation, education, research and service.

*Rabies.* Progress continued in the control of this dread disease. Assistance was given to several counties in developing more adequate control programs. The only problem area during the biennium was located in Surry and Alleghany counties with outbreaks in the fox population. Since October, 1961 the State has been rabies-free for the first time in history and the number of human antirabic treatments administered has declined to an all-time low. The Fourth Rabies Control Conference was held for county and city officials interested in this disease. A program to immunize certain groups of individuals with unusual risks of repeated exposure to animal bites was initiated. Advice to physicians on the handling of human animal bite cases continues to be a complicated problem.

*Epidemiological Investigations.* Assistance was given in the investigation of the following human cases or outbreaks of disease: Encephalitis, tularemia, brucellosis, ringworm, anthrax, salmonellosis, Rocky Mountain spotted fever, psittacosis, trichinosis, blastomycosis and tuberculosis. Contact with infected swine in eastern North Carolina has now become the most important source of human brucellosis.

For the first time an outbreak of vesicular stomatitis among cattle, including several human cases among persons in close contact with cattle, was investigated in several western counties.

Disposition of milk from a large herd of dairy cows accidentally poisoned by a mixture of lead arsenate created a complicated problem.

*Surveillance Programs and Surveys.* Surveillance of industrial anthrax and psittacosis, discussed in previous biennial reports, continued. A bacteriological survey was conducted in two textile carpet plants, with the assistance of the Occupational Health Section and the Public Health Service, to determine the amount of contamination with anthrax spores.

A study to determine the incidence of brucellosis among the employees of a large packing plant was initiated with the cooperation of the plant physician.

*Meat and Poultry Inspection.* The Section represented the public health profession in presenting the need for a state-wide meat and poultry inspection law. Assistance was given in the preparation of news articles for the public, in hearings before committees of the 1961 General Assembly, and in drafting the law enacted. On July 1, 1962 all meat and poultry products sold across county lines must be inspected by the State Department of Agriculture. Assistance is being given to several counties in developing programs that would require all meat sold within the county to be properly inspected.

*Rendering Plant Inspection.* The Section Chief represented the State Board of Health on the inspection committee authorized by the 1955 General Assembly requiring annual inspection of all plants. Two proposed sites for the location of new plants were inspected and rejected.

*Teaching and Research.* A credit course, *Veterinary Medicine and Public Health*, was presented by the Section Chief at night for graduate students at the School of Public Health, University of North Carolina. The Section Chief also served on an Examining Committee of the Graduate School.

*Consultations.* The Section Chief consulted with local health directors and staff, county boards of commissioners and health, veterinarians, physicians, civic groups, school officials, wildlife clubs and other state agencies on various matters relative to veterinary public health. A monthly newsletter was distributed to all local health departments with an attached rabies morbidity map giving distribution of animal rabies up to Oct. 1961 when the State became rabies-free. Educational pamphlets on wildlife rabies, leptospirosis and trichinosis were developed for general distribution.

*Post-Graduate Training.* The Section Chief attended the course, *Pathology of Diseases of Laboratory Animals*, Armed Forces Institute of Pathology, Washington, D. C. Sept. 26-30, 1960.

*Scientific Papers.* Papers prepared during the biennium were:

- “Safety—At Home, Work and Play”—First Regional Rural Health Conference, Atlanta, Georgia, 1960
- “Role of Veterinarian in Natural and Man-Made Disasters”—Central Carolina Veterinary Association, Greensboro, 1961
- “Veterinary Preventive Medicine”—University of Georgia, Athens, Georgia, 1961
- “Public Health Aspects of Mastitis Control”—First Conference on Mastitis Control, North Carolina State College, 1961
- “Health Hazards in Agriculture”—Inter-Mountain Rural Health Conference, Salt Lake City, Utah, 1961
- “Effective Public Health Program as Viewed by the Veterinarian”—Indiana Public Health Association, Indianapolis, Indiana, 1961
- “Heartworms in Dogs”—Wildlife in North Carolina, December, 1961.

*General Activities.* In August 1961 the Section Chief was elected to the 10-member Council on Education of the American Veterinary Medical Association. This Council has the responsibility for accreditation of all veterinary colleges in the United States and Canada.

On September 11-12, 1961 the Section Chief represented the veterinary profession at a small group (15) meeting sponsored by the Joint Committee for the Study of Graduate Public Health Education in United States. The purpose of this meeting was to exchange thoughts on the progress of public health since 1911, where we stand today, our future course, and changes required in graduate public health training.

Mr. Charles Gerhardt, Regional Office, Public Health Service, made a study of the Section in October 1960 as to objectives, activities and future goals. This was included in a general evaluation study of the State Board of Health.

#### Public Health Statistics Section

Again, as in previous bienniums, the Public Health Statistics Section experienced an increase in the demand for statistical services. This has been the pattern since its establishment in 1950.

The Section, more often referred to as the Bureau of Vital Statistics, was involved in rendering some type of statistical or accounting services for practically every Section in the State Board of Health. Of course, the

vital statistics activities involving the supervision of the preparation of all reports of births, deaths, fetal deaths, marriages, and divorces, occurring in the State, plus the many other tasks of collection, processing, certification, tabulation, analysis, and permanent preservation required more time, effort and administrative knowledge than any other program.

The 1961 General Assembly passed legislation requiring the central registration of all marriages in the State, effective January 1962. The first six months reporting experience in 1962 indicates that we will have approximately 35,000 marriages per year as against 7,200 divorces. The addition of marriages to the vital statistics family, although carrying with it more problems in the need for space and personnel, will be of immeasurable use to the general public and to attorneys plus providing much needed statistical information to sociologists, ministers, governmental and business organizations.

Space for preserving our vital records (over 210,000 in 1962) will have to be found since all records must be retained permanently for personal and historical uses.

Considerable progress can be reported towards obtaining more prompt and completely accurate recording of the birth and death certificates. Eighty-four counties have been consolidated with the local health director serving as registrar. Less than five per cent of the certificates are filed late, and of those late, practically all are only one month late. A routine checking procedure has been initiated whereby offending attendants and funeral directors can be dealt with, and other procedures to promote good registration practices have been continued.

The ever-increasing uses made of our vital records for various purposes has resulted in an appreciable increase in certifications, adoptions, legitimations, register clearance, and special studies. A 39 per cent increase in the number of tabulated reports prepared by the Section during the biennium (2,876 -vs- 2,076) made it mandatory that the Section replace two IBM 402 tabulating machines with two IBM 407 machines. These machines, though more expensive, are faster and more versatile and have made it possible to increase the work load without employing more data processing personnel, for the time being.

The Section has a total of 64 employees; 14 in the Central Tabulating Unit, 10 in the Statistical Analysis and Reports Branch, and 40 in the Registration, Certification and Administrative Sections. During the biennium, 13 employees resigned: 5 due to a promotion, 3 were transferred, 4 because of marriage, and one to complete work on his doctorate.

In cooperation with the University of North Carolina School of Public Health, the Section conducts the course, *Field Training in Public Health Statistics*, which is a requirement toward the M.S.P.H. degree for biostatistics majors. A student, having completed the formal course work, is assigned to the Section for a 10-12 week period of training in routine and special programs of the Section and must complete a specially assigned analytical investigation of his own. The course is designed to give the student practical experience and to familiarize him with some of the problems to be encountered upon entering the field.

The Section participates in many special studies and research projects in cooperation with program heads, other agencies, and institutions. The role of the Section in these projects generally consists of one or more of the following: Consultation, form design, sampling, data-collection, tabulation, and statistical analysis. Some studies current to this biennium are:

(1) *Fetal and Neonatal Mortality Study.* The primary objective is to promote improved maternal and child care through knowledge gained by studying characteristics of a large group of fetal and neonatal deaths as compared with characteristics of a control group of survivors in our three medical schools.

(2) *Immunization Survey of First Grade School Children.* The purposes are to evaluate levels of immunization with respect to poliomyelitis, diphtheria, tetanus, pertussis, and smallpox on the basis of school health records, and to determine the adequacy of these records. Forms for 112,000 children were processed in this study. Data-collection, tabulation, and part of the analysis were completed during the biennium and other reports are to follow.

(3) *Automotive Crash Injury Research.* This study is concerned with injury and death resulting from automobile crashes with the goal of preventing death and diminishing severity of injury through alteration or elimination of certain engineering features of passenger cars. This research, conducted under the direction of Cornell University, has led to such innovations as seat belts, disked steering wheels, recessed panel instruments, padded visors and dashboards, and safety door locks.

Other special projects and studies in progress as of June 30, 1962 are: (1) *Halifax Nursing Time and Cost Study*; (2) *Nursing Consultants Time Study*; (3) *Nutritionists Time Study*; (4) *Premature Care Program*; (5) *Nursing Home Study*; (6) *Occupation and Education as Socio-Economic Indices in Neonatal Mortality*; and (7) *Some Aspects of Medical Certification by Coroners*.

Special studies and projects which were completed during the current biennium are: (1) *Wilson County Tuberculin Survey*; (2) *Wake County Premature Study*; (3) *Poliomyelitis Surveys in Selected Counties*; (4) *Nursing Time and Cost Study in Five Counties*; (5) *Hospital Discharge Study*; (6) *Trends in Infant Mortality*; (7) *Census Enumeration Completeness in the Under 10 Age Group*; (8) *Registration Completeness of Infant Deaths Weighing Less than 1500 Grams at Birth*; (9) *Net Migration, by Age, Race and Sex, for North Carolina and Each County, 1950-1960*; and (10) *Neonatal Death Study*.

#### Tuberculosis Control Section

In general, the program content of the Tuberculosis Control Section for the biennium consisted of tuberculosis case detection through mobile chest x-ray surveys, case detection through tuberculin testing projects in co-operation with counties, consultant service in tuberculosis control to counties and other measures having to do with tuberculosis control.

Chest x-ray surveys consist of surveys of the general population and special groups under the supervision of the local health director. Organizations which cooperate in surveys are the local tuberculosis association, local medical society, local board of health, Negro leaders of the community, civic clubs, churches, county commissioners, other organizations and persons interested in public health. On account of a reduction in funds, four mobile units only are used and only on rare occasions is it possible to operate a fifth unit. Special groups for survey consist of the population in poor economic communities and known areas of high rate of infection; also, industrial plants, educational institutions, State institutions such as the Central Prison, State hospital and School for the Blind and Deaf.

The Section cooperates in tuberculin testing projects by placing on loan to counties tuberculin testing supplies and also furnishing consultant services. During the biennium 29 counties have had this assistance.

Health education is emphasized both before and during x-ray surveys, and emphasis is also placed on the continuous follow-up of those cases which have been found to have chest abnormalities. Publicity material is furnished to health departments without charge. A health education consultant and nurse are available to assist counties.

Follow-up activities in many surveys are conducted by one of the two x-ray technicians who is assigned solely to this type of work, and the technician is stationed either in the health department or nearby in the follow-up x-ray trailer.

Other duties performed by the Section consist of:

(1) Participation in special case detection projects such as the present "Crash Program" in Halifax County with USPHS aid; proposed case detection project to be conducted in Mecklenburg County (this project is dependent on approval of the Plan by the U. S. Public Health Service, also the continuation of the Pamlico County Project which has been in progress since 1956).

(2) Organization of county chest clinics in cooperation with the State Sanatorium System and the attendance by the Section Chief at five such clinics. Eighty counties are now served by a chest clinic which is either located in the county health department or in the immediate area.

(3) Dissemination of pertinent tuberculosis control literature to health departments by this Section.

(4) Conducting the extension service formerly conducted by the Sanatorium System.

(5) Cooperation with the Heart and Cancer Section by furnishing to that Section timely reports showing cardiovascular abnormalities and lung cancer suspects found in our chest x-ray surveys.

(6) Furnishing funds from Section budget to employ personnel in the Laboratory of Hygiene and the Public Health Statistics Section, which are supporting services.

(7) Cooperation with the Nursing Sections in chest x-ray surveys, tuberculin in testing projects, and other matters concerning tuberculosis control.

(8) Cooperation with the State Department of Welfare, particularly in the chest x-ray of public assistance recipients.

(9) Cooperation with the Nutrition Section; this Section furnished advice to patients in chest clinics and also to the State Sanatorium System.

(10) Close liaison with the Sanatorium System, the State Tuberculosis Association, the State Rehabilitation Division.

(11) Occasional attendance at local medical societies in connection with establishing local county chest clinics.

### Personnel and Equipment

*Personnel.* Personnel consists of the Section Chief, who is a full-time physician; also, one physician employed part time for occasional assistance in 70 mm. x-ray interpretation; seven full-time x-ray technicians, one part-time dark-room technician; one clerk in the field; two clerks in the central office. Also, four persons in supporting services are partly paid from Tuberculosis funds.

*Equipment.* Six trailers housing x-ray equipment; one trailer used as an office; one trailer which houses a 14 x 17 x-ray unit for follow-up activities; one trailer used for general storage; three x-ray machines on loan to Duke Hospital, Halifax and Edgecombe counties.

| Budget        | 1960-1961 | 1961-1962 |
|---------------|-----------|-----------|
| Federal ..... | \$ 84,400 | \$ 68,400 |
| State .....   | 39,834    | 41,853    |
|               | <hr/>     | <hr/>     |
|               | \$124,234 | \$105,253 |

The 1961-1962 budget is insufficient to conduct a proper tuberculosis control program. The Section requires two additional technicians in order for five x-ray units to be operating continuously. The Section cannot fill all applications for survey. The Federal budget has decreased by \$21,000 since 1960-1961.

### Accomplishments

During the biennium the Section conducted 83 chest x-ray surveys in 54 different counties. Section mobile x-ray units have entered every county in the State except Surry, Lee and Alamance. Twenty-five of the 54 counties surveyed during the biennium have been entered twice and surveys have been conducted in eight counties three times. As of June 30, 1962, the Section has x-rayed 3,804,074 persons. A tabulation of x-rays made in the field by Section units, x-rays interpreted in the central office for counties, x-rays made by Section units on loan, and x-rays interpreted by the Section Chief at chest clinics follow:

|  |         |
|--|---------|
| Miniature x-ray films made by Section units in the field .....                         | 376,533 |
| Large films estimated to have been made by Section units in follow-up activities ..... | 7,500   |
| Miniature films made by Section x-ray units on loan .....                              | 42,706  |
| Miniature films interpreted for counties at the central office .....                   | 54,069  |
| Large films interpreted by Section Chief at county and city chest clinics .....        | 5,409   |
| Grand total .....  | 486,217 |

### Findings

Tuberculosis findings as a result of chest x-ray surveys have steadily decreased in the state as a whole since 1956. Other chest findings such as pleural changes and cardiovascular abnormalities show no change. In 1956, 1,201 tuberculosis suspects were found in surveys. In 1961, suspects totaled 403. Findings for 1962 are not available as follow-up activities during the spring of this year are still under way. Cardiovascular abnormalities and pleural changes were 7.8 and 5.2 per 1000 persons x-rayed, respectively, in 1961; cardiovascular findings were particularly high. Tuberculosis findings, however, in three counties, Halifax, Macon and Bertie, were as high and even higher than during the early days of chest x-ray surveys. In view of these findings and in view of the slow, downward, active case incidence from year to year, there is every indication that tuberculosis is a serious public health problem and that there must be increased local activity in control measures.

### Venereal Disease Control Section

During the biennium 1960-62, the Venereal Disease Control Program was based upon case-finding through: (1) epidemiology, (2) screening and surveillance, and (3) education; and upon diagnosis and treatment by public and private means of infected persons thus discovered.

The Prevention and Control Centers were closed during this biennium. These had been operated in four locations in the state since the closing of the rapid treatment centers to provide a medical specialist to assist local health departments and private physicians in differential diagnosis and with diagnostic problem cases.

A limited fee-for-service, utilizing local specialists, has been established to assist the local health departments and practitioners.

With more than 100 per cent increase in reported infectious syphilis during this biennium compared to 1958-1960, two significant changes were made in program operations:

1. The field staff of the Section personally visits every practicing physician in the state to: (a) present the book, "Syphilis, Modern Diagnosis and Management", recommended treatment schedules, etc., to increase his diagnostic acumen and provide program information to keep him advised of trends and developments; (b) to obtain complete morbidity reporting, and (c) to provide epidemiologic services for all infectious syphilis cases diagnosed.

2. Complete surveillance and follow-up of every potential case of venereal disease in the state. This was accomplished through: (a) the passage of a law by the General Assembly requiring laboratories to report all reactive tests for venereal disease to the health department—which affords them protection from libel, and (b) routinely visiting each of the 241 to 244 operating laboratories in the state to analyze available data and establish reporting procedures.

As a consequence, more than 34,000 reactive serologic reports are available to the state and local health departments for the institution of necessary follow-up with the examining physicians.

Evidence of the acceptance and success of these approaches is indicated in the table shown below:

**Reported Cases of Venereal Disease**  
**Fiscal 1961-1962**

|                          | 1961  |        |       |       | 1962  |        |       |       | Per Cent Change |
|--------------------------|-------|--------|-------|-------|-------|--------|-------|-------|-----------------|
|                          | PP*   | Clinic | Mil.  | Total | PP*   | Clinic | Mil.  | Total |                 |
| Syphilis                 |       |        |       |       |       |        |       |       |                 |
| Primary and Secondary    | 92    | 377    | 63    | 532   | 209   | 411    | 51    | 671   | +26.1           |
| Early Latent             | 263   | 371    | 13    | 647   | 256   | 405    | 21    | 682   | + 5.4           |
| Late Latent & Other Late | 1,102 | 657    | 6     | 1,765 | 1,598 | 794    | 7     | 2,399 | +35.9           |
| Congenital               | 86    | 67     |       | 153   | 92    | 64     | 1     | 157   | + 2.6           |
| Total Syphilis           | 1,543 | 1,472  | 82    | 3,097 | 2,155 | 1,674  | 80    | 3,909 | +26.2           |
| Gonorrhea                | 789   | 7,416  | 1,468 | 9,673 | 784   | 6,932  | 1,036 | 8,752 | - 9.5           |
| Other Venereal Diseases  | 9     | 82     | 11    | 102   | 12    | 67     | 13    | 92    | - 9.8           |

\* Private Physician

Of the reportable communicable diseases in the State, gonorrhea and syphilis ranked No. 1 and No. 2 in 1960 and No. 1 and No. 3 in 1961, respectively. Approximately, 60 per cent of all the communicable disease reported in North Carolina is a venereal disease.

More than 45,000 epidemiologic investigations were performed this biennium compared to 29,000 in the 1958-1960 biennium. This is an increase of more than 55 per cent.

Selective testing in high incidence areas or groups was continued. The education program with professional groups, the general public and patients was intensified.

Both the scope and intensity of epidemiologic procedures applied to infectious syphilis was increased. The epidemiologic success rate and other indices place North Carolina among the highest in the nation. Every case of infectious syphilis reported by private physicians, military and public health clinics was interviewed by the venereal disease field staff for the first time since the venereal disease control program was begun. In addition, cluster testing, obtaining and examination of suspects and associates of infectious cases was applied in almost 100 per cent of the cases interviewed.

The State continued to train venereal disease field epidemiologists in a cooperative program with the Public Health Service. Fifty-one men were recruited and received training in North Carolina.

The total expenditures for the venereal disease control program for the 1960-1962 biennium was \$325,496, of which \$61,451 was State funds and \$264,045 Federal funds. Not included in this total are the personnel assigned by the Public Health Service that consists of four district epidemiologists and two health program representatives and the Section Chief for one year.

#### Accident Prevention Section

Accidents continue to be a major source of mortality, injury, disability, and economic loss in North Carolina. In the year 1960, accidents caused 2,688 deaths in the State. Of the total number, 1,276 deaths were caused

by motor vehicle accidents, 867 deaths were caused by home and farm accidents, and the remaining 545 deaths were caused by accidents occurring in public places, recreational areas, and in occupational pursuits. An analysis of home and farm accident deaths, according to the age of the victim, reveals that death rates are highest for the groups under the age of five years and past the age of fifty-five years. Since young children and those in the later years of life spend a proportionately greater share of their time in the home, their unfavorable experience with this type of accident is easily understood.

Statistical data regarding accidental injury in the home and on the farm are not available for the entire state since there is no single agency or mechanism for the reporting of non-fatal accidental injuries occurring in these sites. Estimates based on nation-wide studies would place the number accidentally injured in the home and on the farm in North Carolina at a minimum of 115,000 persons annually, with the maximum estimate reaching the total of 500,000 persons per year.

During the biennium, the staff worked with health departments in 40 counties on a variety of accident prevention activities. Assistance to local health departments varied from conducting in-service education programs for staff members to participation in the planning and execution of a fire prevention project for rural youth. All local health departments have received regularly the Section Newsletter "Home Safety News Notes". They also receive, periodically, statistical information on home and farm accidental deaths as well as new educational materials as new materials are produced.

The Section has given assistance to 23 local units of the N. C. Agricultural Extension Service. This has consisted primarily of help to county agriculture and home economics agents in planning safety demonstrations for meetings, in planning safety activities for 4-H clubs, and in providing resource materials and visual aids.

The Section has assisted in the establishment of additional poison information centers in the state. During the biennium, centers have been established at Hendersonville and Asheville. Other centers in the state are located at Durham, Charlotte, Wilmington, Jacksonville, and Mount Airy.

The Section staff have participated actively in the efforts of the North Carolina Rural Safety Council. The Council, organized in April 1960, has held annual rural safety conferences in 1960 and 1961.

The Section has actively promoted the installation and use of seat belts. Its first efforts were with the staff of the State Board of Health. About 80 per cent of the professional staff members, as well as many non-professional staff members, now have installed and use seat belts in their personal cars. Activities were expanded to local health departments. Now many county public health workers use seat belts. The Section suggested to the N. C. Junior Chambers of Commerce that they consider seat belt promotion as a state-wide project. Later, they conducted a campaign and sold over 60,000 belts in the state.

The Section is cooperating with the U. S. Public Health Service and the Robeson County Health Department in a special project in Fire and Burn

Injury Prevention. The project started in December 1961 and will be continued for three years.

Staff members have lectured on home accident prevention at schools of nursing and in other departments of several colleges and universities. They have also been program participants at several national, regional, and state meetings. Staff members have been guest speakers at meetings of such groups as parent-teacher associations, community development clubs, civic clubs, and many other local groups.

#### Occupational Health Section

Personnel changes have slowed but not prevented excellent, increased professional staff effectiveness. Due to the heavy work load, two new clerical positions were added. An effective industrial hygiene associate has replaced two others who resigned in succession for financial reasons. A well-qualified electronics technician has been added to insure functional instrument maintenance. The U. S. Public Health Service radiation consultant assigned for training has produced gratifying expansion of radiation surveillance (see also Radiological Health Report). The nurse consultant position vacated for personal reasons has had no qualified replacement candidate.

Staff members continued technological and administrative improvement through personally paid professional group memberships, studies of excellent up-to-date reference books and journals, officially and personally paid attendance at conferences, and special training courses. Better technical consultations, studies, and recommendations and advice to employers and professions throughout the State have resulted directly. Advisory bulletins have been prepared and distributed widely, closely coordinated with private and official staffs. A whole issue of a national monthly medical journal dedicated to North Carolina was prepared. It is distributed to 53 nations.

Careful scheduling permitted 26 per cent more engineering studies of non-dusty trade work environments and twice as many chest examinations of non-dusty trade employees by the mobile x-ray unit. Thus, extensive services which had to be neglected previously despite many employers' requests, have been added and, through increased medical consultations, correlated with local personal physicians to improve many working persons' health.

Concentrated attention produced increased assistance and information to local health departments, to state medical, dental, hospital and veterinary associations, and more especially to their individual members locally. Concurrently, continuing liaison with Federal agencies has increased greatly their valuable financial assistance, training, and other supports, to the State. Coordination of activities with and assistance to other state agencies has increased, particularly the Department of Labor and the Industrial Commission. Numerous seminars of the previous biennium have been repeated, personal health protection training has been added to the State Highway Patrol, new training to graduate student groups of the University of North Carolina and to local health department staffs was given.

Short-range benefits of this program are evident but less measurable than are the long-range ones. As only one example, consider the economic

and social meaning to the employers of some 10,000 dusty trade workers created by reducing their chances of acquiring silicosis to one-tenth that of 1935 (annually, at first, one of every 44 examined; now only one of every 411 examined). But immense challenges remain. Very modest additional means would help many non-dusty trades employers reduce equally the preventable monetary and human costs not only to themselves and the workers in agriculture, construction, and government where excessive job-caused absenteeism continues, but also to all other employees in the state as well. The needless costs to families, communities and the State of such preventable absences can be equally reduced. In a recent review of our program and its deficiencies, the Public Health Service, which allots many funds to this state, urged our active efforts to do this. While existing pertinent statutes are generally adequate, means are not.

Informed attention to the last biennial summation is even more critical now than in 1960: "Certain industrial noises, ionizing radiation, chemical intoxications, can be expected to create new and more hazards. Increasing industrialization creates not only more volume of but more varied responsibilities, more demands for field visits and recommendations to employers. We can meet the challenges by increased study, research, training of our personnel, and by cooperation with Federal and our other State agencies and with our privately practicing professions, given the means to do so".

| FIELD CONSULTATION/STUDY/INSTRUMENTATION/TRAINING OTHERS:       |                            | 965                            |                    |   |
|---|----------------------------|--------------------------------|--------------------|---|
| Engineering Surveys   | 725                        |                                |                    |   |
| Dusty Trades  | 466                        |                                |                    |   |
| Non-dusty trades  | 73                         |                                |                    |   |
| Field determinations  | 718                        |                                |                    |   |
| Radiation   | 171                        | (see also RADIOLOGICAL HEALTH) |                    |   |
| Other   | 15                         |                                |                    |   |
| Medical visits  | 88                         |                                |                    |   |
| Nursing visits  | 81                         |                                |                    |   |
| Training events   | 71                         |                                |                    |   |
| FIELD SAMPLES COLLECTED FOR LABORATORY ANALYSIS                 |                            | 1,617                          |                    |   |
| PRESCHEDULED FORMALIZED STAFF TRAINING: 5 trained in 23 courses |                            |                                |                    |   |
| TECHNICAL EQUIPMENT ADDED OR REPLACED                           |                            |                                |                    |   |
| Radiation—see RADIOLOGICAL HEALTH                               |                            |                                |                    |   |
| Other   | —56 items                  | at cost of \$4,269             |                    |   |
| TOTAL CHEST X-RAY FILMS INTERPRETED                             |                            | 28,960                         |                    |   |
| Chest x-ray films made by Section Mobile Unit                   |                            | 26,475                         |                    |   |
| 432 silica plants   |                            |                                |                    |   |
| 527 visits  | 10 asbestos plants         | )—Dusty trades                 |                    |   |
|   | 85 non-dusty trades plants | (13,297)                       |                    |   |
|   |                            | (13,178)                       |                    |   |
| Chest x-ray films received from other sources (pre-employment)  |                            | 2,485                          |                    |   |
| TOTAL EMPLOYEES REFERRED—FURTHER EXAMINATION                    |                            | 757                            |                    |   |
| Sanatorium study, dusty trades employees                        |                            | (172)                          |                    |   |
| Personal physicians' follow-up examinations                     |                            | (585)                          |                    |   |
| X-RAY FILM PATHOLOGICAL FINDINGS                                |                            |                                |                    |   |
| Dusty trades  |                            |                                |                    |   |
| New silicosis   | 41: First stage            | 30 Second stage                | 8 Third stage      | 3 |
| New asbestosis  | 5: First stage             | 5                              |                    |   |
| Other pathology   | 75: Tuberculosis           |                                | 9 Bronchiectasis   | 2 |
|   | Heart                      |                                | 51 Histoplasmosis  | 1 |
|   | Cyst                       |                                | 1 Sarcoidosis      | 1 |
|   | Carcinoma                  |                                | 2 Pleural effusion | 1 |
|   | Suspected Tumor            |                                | 3 Others           | 4 |

|   |        |
|---|--------|
| Non-dusty trades  |        |
| More definitive film necessary .....                        | 218    |
| Suspected tuberculosis .....                                | 170    |
| Heart .....   | 82     |
| Other pathology .....                                       | 45     |
| EMPLOYEES ISSUED DUSTY TRADE WORK CARDS                     | 15,679 |
| EMPLOYEES RECOMMENDED REMOVAL FROM DUSTY TRADES             | 78     |
| ADVISORY MEDICAL COMMITTEE REPORTS TO INDUSTRIAL COMMISSION | 93     |
| MEDICAL CASE HISTORIES SUBMITTED TO INDUSTRIAL COMMISSION   | 7      |
| CASE HEARINGS—COMPENSATION CLAIMS                           | 48     |
| COURT HEARINGS ATTENDED                                     | 19     |

### State Radiological Health Program

This program, only two and one-half years old, was made necessary by the ever-increasing daily possibility of public exposures to dangerous amounts of ionizing radiation. All protection of our citizens undertaken up to early 1962, in compliance with the 1959 Atomic Energy Act, has been attained by the existing staff through reduction of other essential activities, and the diversion of funds from previously scheduled uses to procure required electronic instruments. Since the allotment of necessary funds from the Governor's Contingency and Emergency Fund, approved 29 January 1962, gratifying progress has been more rapid.

A member of this Division's staff heads the State Radiological Health Program. Also, he serves as Secretary to the North Carolina Atomic Energy Advisory Committee created by the 1959 Act. While vital activities are undertaken independently by the Occupational Health Section, Sanitary Engineering Division, and Laboratory Division, all are coordinated with maximum effectiveness and economy. This program provides a nucleus around which to organize for meeting the radiation hazards which could be created by enemy attack, but is not adequate for this Civil Defense function.

The program provides for strict surveillance over all work-created exposures to all forms of ionizing radiation; for equally careful surveillance over the general environment to detect radioactive material exposures which could render dangerous the air we breathe, the water we drink, the foods we eat; for technical guidance to all who may become concerned with the handling of nuclear accidents, closely coordinated with the State Highway Patrol; for laboratory analyses and tests in support of all. Each of these functions requires extensive, highly specialized training. A State Radiological Emergency Team is always available with a Team handbook kept fully up to date for comprehensive guidance. Eight leading Medical Radiologists voluntarily continue available at all hours to advise the Team on medical care for accidental victims of radiation.

The program has had detailed review and approval by authoritative consultants both in and out of the state, in August 1960 and again in May 1962. The program is coordinated thoroughly with the other state agencies, local health departments, local police and sheriffs' departments, the United States Atomic Energy Commission, Public Health Service, Armed Forces,

professional associations of the State, and others. Nearly 4,000 radiation sources in the State have been registered, voluntarily.

With seven full-time personnel recently available, 23 staff members' part-time attention must continue. Over \$67,000 worth of modern electronic equipment has been procured; 14 staff members have completed 33 formalized training courses. Some \$300,000 has been obligated by the Public Health Service for graduate training in our University up to 1966, \$39,535 from the Atomic Energy Commission for extension training. Guidance and full assistance continue available to local health and other authorities. All health department x-ray equipments have been physically inspected, with instrumentation, and their deficiencies reported for correction. Eighty per cent of all dentists in the State have cooperated in exposing Sur-Paks furnished them free to permit safety check of their x-ray machines. Specific recommendations to each dentist permit corrections of existing defects mostly without expense. Since 1958 a monthly study has been made of 31 key-town water supply systems, covering all water basins, 113 other towns bi-monthly; all supported by laboratory gross-scan analyses.

Protection of our citizens from future dangerous radiation exposures requires expanding surveillance over all work areas where radiation sources exist; increasing collection and laboratory study of air samples, water samples, food samples, and earth or other materials which can become contaminated ever more frequently; increasing capabilities to handle contamination created by nuclear accidents; and laboratory services to measure and guide all of these activities.

Legislation (1959) is adequate to enable public health protection, if amended periodically, to meet rapid technological and Federal regulatory changes. Means provided to date are not adequate. A sound, economical, effective program has been projected to 1967 with assistance from consultants and has been budgeted accordingly, but requires enlightened legislative supports, especially if fall-out problems should increase.

## LABORATORY DIVISION

The Laboratory Division continues to support both the medical and non-medical activities of the State and Local Health Departments. Services are offered directly to the physicians of the State in identifying etiological agents. All human specimens must be submitted by a physician, dentist, or others licensed to practice medicine or its related arts. All reports are considered confidential information to which only the physician submitting the specimen is entitled. The Laboratory is required by law to examine at least once a month samples of water from public water supplies. Any water supply furnishing portable water to ten or more residences or businesses or combination of residences and businesses is deemed a public supply. The analysis of water is also made available to owners of private water supplies. Any citizen of the State may submit and have an animal head examined for rabies and receive the report.

One million, twenty-four thousand, six hundred ninety-nine (1,024,699) laboratory examinations were made during the past biennium, an increase in number over the last biennium of approximately 9%. The number and type of specimens received reflect the changes and progress being made in public health.

A study of the tabulation of specimens examined reveals several interesting and important facts.

The continued decline in typhoid fever and diphtheria is encouraging. However, the decrease in the use of typhoid vaccine causes one to believe that we are rapidly developing into a population susceptible to typhoid fever and, with the number of typhoid carriers known to exist in North Carolina, a serious situation could arise if an antibiotic resistant strain of typhoid organisms should develop in one of these carriers.

In spite of improved sanitary and economic conditions, the number of intestinal parasites continues at about the same per cent positive.

Tuberculosis isolation and identification continue about the same with many atypical acid fast organisms found.

The Laboratory Division gave support to the Division of Sanitary Engineering and Local Health Departments in the emergency which followed the storm on the northeast coast of North Carolina early in 1962. As a result of this storm, the number of water samples received by the Laboratory was doubled. This extra load was carried by our regular force for several months before funds were made available to employ temporary personnel to assist in examining the extra water samples. It appears that this increase in the work load will continue well into the next biennium.

### CHEMISTRY

The Chemistry Section continued to make a wide variety of chemical tests during this biennium. Analysis for toxic elements and compounds, and mineral analysis of public water supplies were inaugurated during this period to meet the requirements of the Public Health Service Standards

for drinking water. Work was completed on establishing the background level of radiation in public water supplies. Plans were made and will be carried out to establish the level of radiation in food and milk supplies and to provide help in a radiological emergency. Though there was a decrease in the number of examinations, more complicated chemical analyses were made during this period. There has been considerable focus on radiological and occupational health hazards during this period and members of our chemistry group have devoted many hours to conferences and workshops involving the plans for the establishment of new facilities and procedures.

### CYTOTOLOGY

The demand for cytological examination of smears for cancer continued to increase. A total of eighty-two thousand, ninety-nine (82,099) examinations were made. In the beginning of this biennium it was anticipated that with the increase in trained personnel we should expect to make approximately 80,000 examinations. The need for cytological examinations in the State is as great as ever, and it is felt that making the Papanicolaou test available to indigent and medically indigent patients is one of our greatest needs in preventive medicine.

### ENVIRONMENTAL HEALTH (DUST, SHELLFISH, WATER)

Environmental Health examinations include those of dust, shellfish and water. Atmospheric samples are examined for dust content. In our Morehead City Shellfish Laboratory seafoods and water from oyster beds are examined to determine evidence of pollution or contamination. Our Water Unit, the oldest unit in the Laboratory Division, examines samples of water from public and private supplies for sanitary quality. Also, microbiological tests are made to determine the cause of tastes and odors in water supplies and the cause of corrosion and clogging of water systems.

### INFECTIOUS DISEASES

The Infectious Disease Sections continue to provide a complete identification service for all bacterial, parasitological, Rickettsial and Virological agents by isolation, microscopic and serologic procedures where there is a standard method available. During the biennium the fluorescence antibody test for syphilis was made available. This test, known as TPA, is as specific as the Treponema Pallidum Immobilization Test (TPI) and is much more economical to perform.

The Laboratory continues to serve as a *Salmonella* and *Shigella* typing center in North Carolina.

Phage typing of staphylococci has been continued, but the demand for this service has leveled off.

Typhoid and diphtheria organisms are seldom isolated which reflects the effectiveness of public health control measures.

No evidence of rabies has been found in an animal brain since October 1961.

## ADDITIONAL SERVICES

The Laboratory Farm continues to produce our small animals which is an invaluable service since many animals available commercially are infected with various viral and bacterial diseases and are unfit for laboratory purposes. Also it continues to supply sheep blood to hospitals, including Veterans Hospital in Durham; North Carolina Memorial Hospital, Chapel Hill; Rex Hospital and Wake Memorial Hospital, Raleigh; and any other users of sheep blood in Raleigh and vicinity in addition to supplying our own needs for sheep blood.

## LABORATORY APPROVAL

The Laboratory Division continues to participate in the evaluation of laboratories making serological tests for syphilis under the State Marriage Law. There are now 195 Approved Laboratories operated in North Carolina. This service requires at least one visit a year by a representative of the Laboratory for the purpose of surveying the physical aspects of the laboratory, evaluating the work of the serologist, and to make certain that reports have been made each month on the examination of ten (10) check specimens sent out monthly by the Laboratory Division to each laboratory participating.

Milk laboratories, examining milk used in interstate trade, are also surveyed by a representative of the Laboratory to determine if the milk is examined in accordance with Standard Methods for the Examination of Milk and Dairy Products. There were 26 certified laboratories under this system at the end of the biennium.

During the biennium a Certification Program was inaugurated for the purpose of certifying water plant laboratories to examine water used on common carriers engaged in interstate traffic. (This activity has been initiated in conjunction with the certifying of milk laboratories; that is, the same representative surveys laboratories under each certification program. These laboratories are approved only upon request or on a voluntary basis.)

## SPECIAL SERVICES

The Laboratory Division has continued to render service to other agencies, State and Federal, though a major portion of the work performed is for local health departments and private physicians.

These services include assistance in the study of epidemics of infectious diseases and investigation of food poisoning outbreaks. Also included in special services is the calibration of thermometers, glassware and microscopes against Bureau of Standards recommendations.

The Laboratory Division also assists in the training of technicians, bacteriologists and chemists from local health departments, hospitals, water plant laboratories and private laboratories.

New laboratory methods are performed and evaluated so that we are able to give first hand information on any new procedures when requested.

Consultation service is rendered on laboratory problems in environmental sanitation whenever the need occurs and also in the design and equipment of laboratories when requested.

#### BIOLOGICAL PRODUCTS

The purchase and distribution of biological products and supplies—specimen outfits complete with mailing containers for submitting specimens continued to be an important activity of the Laboratory. These biologicals and supplies are purchased by local health departments, hospitals, physicians and other State institutions.

We have continued to distribute typhoid and smallpox vaccine without charge.

Under the State Provided Plan, the Laboratory distributed 79,538—9cc vials of poliomyelitis vaccine (for indigent and medically indigent children between the ages of two months and six years). Funds for this vaccine were made available from Contingency and Emergency.

The American National Red Cross continued to supply gamma globulin without charge, and the Laboratory has distributed it in accordance with the State Board of Health policy of limiting the use of this product to the control of Infectious Hepatitis and Measles in children.

#### FINANCIAL STATEMENT

Included in our total expenditures is the sum of \$99,884.05, made available through Contingency and Emergency for the purchase of poliomyelitis vaccine to be distributed under the State Provided Plan. Also included in total expenditures is the amount of \$25,463.87 from Contingency and Emergency Funds for the purchase of radiation equipment.

The Laboratory continues to have a loyal staff of workers devoted to duty. In spite of a tremendous turnover in personnel, the efficiency is maintained through the efforts of the experienced employees who do an excellent job in the training of new personnel. Too much can not be written in their praise.

## THIRTY-NINTH BIENNIAL REPORT

| REPORT OF EXAMINATIONS MADE<br>July 1, 1960 through June 30, 1962 | July 1, 1960-June 30, 1962<br>Positive | Total   | July 1, 1958<br>June 30, 1960<br>Total |
|---|--|---------|--|
| <b>CHEMISTRY</b>  |  |         |  |
| Chronic Disease   | 4,164                                  |         | 6,860                                  |
| Water Pollution   | 852                                    |         | 2,420                                  |
| Occupational Health   | 335                                    |         | 308                                    |
| Sanitary Engineering  | 5,271                                  |         | 14,497                                 |
| Water Group   | 8,507                                  |         |  |
| Miscellaneous Chemistry   | 100                                    |         | 62                                     |
| <b>CYTOTOLOGY</b>   |  |         |  |
| Cervical  | 773                                    | 80,631  | 57,375                                 |
| Sputum  | 54                                     | 671     | 976                                    |
| Breast  | 4                                      | 121     | 93                                     |
| Miscellaneous Cytology  | 8                                      | 78      | 578                                    |
| Unsatisfactory  |  | 598     |  |
| <b>ENVIRONMENTAL HEALTH</b>                                       |  |         |  |
| Food  |  | 60      |  |
| Dust  |  | 2,066   | 1,281                                  |
| Shellfish   |  | 4,823   | 6,423                                  |
| Water   | 7,594                                  | 83,136  | 44,247                                 |
| Microbiological   |  |         | 409                                    |
| <b>INFECTIOUS DISEASE</b>   |  |         |  |
| Bacterial   |  |         |  |
| Vincent's Angina  | 76                                     | 358     | 494                                    |
| Undulant Fever  | 35                                     | 2,702   | 8,078                                  |
| Botulism and Other  |  | 4       |  |
| Diphtheria  | 124                                    | 1,307   | 1,082                                  |
| Influenza   |  | 7       | 5                                      |
| Whooping Cough  |  | 1       |  |
| Klebsiella (Friedlander's)  |  | 56      |  |
| Hepatitis   | 9                                      | 1,033   | 2,869                                  |
| Fort Bragg Fever  |  | 12      |  |
| Leptospira (Other)  | 12                                     | 878     | 421                                    |
| Tuberculosis  | 1,005                                  | 40,662  | 41,673                                 |
| Microscopic   | 27,396                                 |         |  |
| Animal Inoculation  | 539                                    |         |  |
| Culture   | 12,727                                 |         |  |
| Gonorrhoeae   | 628                                    | 5,280   | 5,930                                  |
| Meningitis  |  | 3       |  |
| Tularemia   | 11                                     | 2,005   | 2,595                                  |
| Pneumococcus  |  | 16      |  |
| Proteus   |  | 249     |  |
| Pseudomonas   |  | 224     |  |
| Salmonella and Shigella   | 967                                    | 40,474  | 29,535                                 |
| Typhoid   | 14,536                                 |         |  |
| Other Salmonella  | 13,679                                 |         |  |
| Shigella  | 12,259                                 |         |  |
| Staphylococcus  | 518                                    | 12,792  | 8,107                                  |
| Microscopic   | 438                                    |         |  |
| Culture   | 779                                    |         |  |
| Coagulase   | 3,985                                  |         |  |
| Phage Typing  | 7,590                                  |         |  |
| Streptococcus   | 2,204                                  | 6,985   | 8,165                                  |
| Microscopic   | 898                                    |         |  |
| Culture   | 8,687                                  |         |  |
| Anti Streptolysin O   | 1,769                                  |         |  |
| Serologic Typing  | 631                                    |         |  |
| Syphilis  |  | 598,715 | 624,850                                |
| Qualitative Blood   | 550,302                                |         |  |
| Quantitative Blood  | 24,557                                 |         |  |
| Spinal Fluid  | 2,865                                  |         |  |
| Total Protein   | 1,509                                  |         |  |
| Darkfield   | 15                                     |         |  |
| U S R   | 14,467                                 |         |  |
| Miscellaneous Bacterial   | 988                                    | 21,927  | 8,046                                  |
| Mycotic   |  |         |  |
| Blastomycetes   | 44                                     | 674     |  |
| Candida   |  | 72      | 70                                     |
| Histoplasma   | 81                                     | 627     | 2                                      |

| REPORT OF EXAMINATIONS MADE<br>July 1, 1960 through June 30, 1962 | July 1, 1960-June 30, 1962 |                 | July 1, 1958<br>June 30, 1960 |
|---|----------------------------|-----------------|-------------------------------|
|   | Positive                   | Total           | Total                         |
| Microsporum .....   | 4                          |                 | 2                             |
| Trichophyton .....  | 7                          |                 | 3                             |
| Yeast-like Fungi .....  | 745                        | 786             | 1,581                         |
| Miscellaneous Mycotic .....                                       | 2                          | 220             | 268                           |
| <b>Parasitic</b>  |                            |                 |                               |
| Intestinal Parasites .....  | 4,628                      | 41,151          | 32,717                        |
| Amebae .....  | 74                         |                 |                               |
| Tapeworm .....  | 7                          |                 |                               |
| Roundworm .....   | 41,070                     |                 |                               |
| Malaria .....   |                            | 92              | 159                           |
| Toxoplasma .....  | 129                        | 983             | 4                             |
| Occult Blood .....  | 211                        | 560             | 305                           |
| Cysts .....   | 1,882                      | 1,882           | 1,190                         |
| Trematode .....   | 76                         | 259             |                               |
| <b>Rickettsial</b>  |                            |                 |                               |
| Q Fever .....   |                            | 64              | 176                           |
| Rickettsial Pox .....   |                            | 168             |                               |
| Rocky Mtn. Spotted Fever & Typhus .....                           | 13                         | 5,882           | 6,488                         |
| Rocky Mtn. Spotted Fever .....                                    | 2,903                      |                 |                               |
| Typhus .....  | 2,979                      |                 |                               |
| Miscellaneous Rickettsial .....                                   |                            | 16              | 17                            |
| <b>Viral</b>  |                            |                 |                               |
| Adenovirus .....  |                            | 6,180           |                               |
| Aseptic Meningitis Syndrome .....                                 |                            | 49              |                               |
| Coxsackie .....   | 111                        | 19,498          | 4,819                         |
| Echo .....  | 44                         | 10,214          | 5,747                         |
| Encephalitis-Japanese B .....                                     |                            |                 | 18                            |
| Encephalitis St. Louis .....                                      |                            | 119             | 422                           |
| Equine Encephalomyelitis Eastern .....                            | 2                          | 168             | 446                           |
| Equine Encephalomyelitis Western .....                            | 3                          | 163             | 444                           |
| Herpes Simplex .....  |                            | 80              | 6                             |
| Infectious Mononucleosis .....                                    | 444                        | 3,816           | 3,738                         |
| Influenza .....   | 16                         | 663             | 783                           |
| Lymphocytic Choriomeningitis .....                                |                            | 132             | 422                           |
| Lymphgranuloma Venereum .....                                     | 2                          | 43              | 35                            |
| Mumps .....   | 16                         | 243             | 543                           |
| Poliomyelitis .....   | 312                        | 4,417           | 4,349                         |
| Atypical Pneumonia .....  | 5                          | 14              |                               |
| Psittacosis .....   | 2                          | 244             | 260                           |
| Rabies .....  | 14                         | 2,683           | 2,910                         |
| Microscopic .....   | 1,417                      |                 |                               |
| Animal Inoculation .....  | 1,266                      |                 |                               |
| Miscellaneous Viral .....   | 34                         | 84              | 52                            |
| <b>Special</b>  |                            |                 |                               |
| C-Reactive Protein .....  | 156                        | 326             | 158                           |
| Miscellaneous Special .....                                       |                            | 18              | 36                            |
|   |                            | <hr/> 1,024,699 | <hr/> 940,499                 |

## BIOLOGICALS DISTRIBUTED—LABORATORY DIVISION, STATE BOARD OF HEALTH

|  |                    | July 1, 1960  | July 1, 1958  |
|--|--------------------|---------------|---------------|
|  |                    | June 30, 1962 | June 30, 1960 |
| Typhoid Vaccine cc.                    | (9,715—20cc Vials) | 194,300       | 260,640       |
| Smallpox Vaccine (Tubes)               |                    | 326,076       | 348,093       |
| Influenza Vaccine (Asian)              |                    |               | 180           |
| Poliomyelitis Vaccine (Sold) 9cc Vials |                    | 9,081         | 38,580        |
| *(Free) 9cc Vials                      |                    | 79,538        | 52,513        |
| Rabies Treatments                      |                    | 217           | 402           |
| **Gamma Globulin cc.                   |                    | 30,364        | 20,406        |
| Toxoids: cc—                           |                    | 423,477.5     | 589,588       |
| Diphtheria Toxoid                      | 240                |               |               |
| Combined Diphtheria Tetanus            | 37,950             |               |               |
| Combined Diphtheria Pertussis          | 200                |               |               |
| Tetanus                                | 82,790             |               |               |
| Triple Angigen                         | 302,297.5          |               |               |
| Pertussis Vaccine                      |                    | 12            | 280           |
| Diphtheria Antitoxin (Units M)         |                    | 8,330         | 11,600        |
| 123—10,000 Units                       |                    |               |               |
| 355—20,000 Units                       |                    |               |               |
| Tetanus Antitoxin (Units M)            |                    | 9,230         | 11,318.5      |
| 4020                   1,500 Units     |                    |               |               |
| 160                   20,000 Units     |                    |               |               |
| Seep Cells (cc)                        |                    | 31,840        | 9,750         |
| Schick Tests for Diphtheria            |                    | 13,150        | 11,920        |
| Dick Tests for Scarlet Fever           |                    | 520           | 1,250         |
| Autogenous Vaccines—(Discontinued)     |                    | 0             | 58            |

\* Distributed under the State Povided Pogam (Emergency and Contingency Funds)

\*\* Furnished to the Laboratory by the American Red Cross and Distributed Free of Charge

## LABORATORY DIVISION STATE BOARD OF HEALTH RECEIPTS

|  | July 1, 1960   | July 1, 1958  |
|--|----------------|---------------|
|  | June 30, 1962  | June 30, 1960 |
| <b>BIOLOGICALS AND PRODUCTS</b>          |                |               |
| Toxoid                                   | \$ 29,461.01   | \$ 28,136.82  |
| Pertussis Vaccine                        | 6.50           | 140.50        |
| Autogenous Vaccine                       |                | 263.50        |
| Silver Nitrate                           |                | 2,771.00      |
| Antirabic Treatments                     | 1,062.49       | 1,902.33      |
| Diphtheria Antitoxin                     | 178.13         | 272.55        |
| Tetanus Antitoxin                        | 2,355.05       | 3,239.18      |
| Dick Tests                               | 48.78          | 82.50         |
| Influenza Vaccine                        |                | 40.95         |
| Poliomyelitis Vaccine                    |                | 8,741.05      |
|  | \$ 33,111.96   | \$ 45,590.38  |
| Water Tax                                | 56,836.25      | 57,236.75     |
| Specimen Outfits                         | 32,211.67      | 28,318.99     |
| Special Fees                             | 822.80         | 904.35        |
| Miscellaneous                            | 1,397.14       | 1,361.94      |
| Animals                                  | 720.41         | 1,399.70      |
| Wool                                     | 498.25         | 168.68        |
| Sold 1958 Chevrolet                      | 219.19         |               |
| Equipment                                | 707.85         | 11.52         |
| Batteries                                |                | 5.20          |
| U.S.P.H.S. Influenza Diagnostic Contract |                | 1,200.00      |
|  | \$ 126,585.52  | \$136,197.51  |
| Total                                    | 7.40           | 154.25        |
|  | \$ 126,578.12  | \$136,043.26  |
| <b>Financial Statement</b>               |                |               |
| Total Expenditures                       | \$1,025,474.84 | \$958,798.30  |
| Total Receipts                           | 126,578.12     | 136,043.26    |
| Appropriation                            | 898,896.72     | 822,755.04    |

## LOCAL HEALTH DIVISION

**ADMINISTRATIVE SECTION:** The Administrative Section for each year of the biennium 1960-61 and 1961-62 allocated funds by formula and in accordance with the Policies of the North Carolina State Board of Health For Allocation of State Aid Funds To Local Health Departments as follows:

|         |   |             |
|---------|---|-------------|
| 1960-61 | Regular State Funds .....                                   | \$1,132,000 |
|         | State Mental Health funds to 14 Mental Health Clinics ..... | 145,000     |
|         | Federal Mental Health Funds .....                           | 98,623      |
|         | Federal Funds General Health .....                          | \$ 80,000   |
|         | Maternal and Child Health .....                             | 120,000     |
|         |   | 200,000     |
| 1961-62 | Regular State Funds .....                                   | \$1,450,720 |
|         | Federal Funds General Health .....                          | \$ 80,000   |
|         | Maternal and Child Health .....                             | 120,000     |
|         |   | 200,000     |

Total State and Federal Funds allocated to local health departments for fiscal year 1960-61 were \$1,575,623. Total State and Federal Funds allocated to local health departments for fiscal year 1961-62 were \$1,650,720. (Mental Health Funds were allocated by the Mental Health Section.)

Local funds for the fiscal year 1960-61 were \$6,650,171.65 and for fiscal year 1961-62 were \$7,082,066.97. This represents an increase of \$1,955,289 or approximately 15% over the amount for the previous biennium. At the close of the biennium it is noted that approximately 78% of all funds in support of the local health program comes from local sources, 19% from State funds, and 3% from Federal funds.

As of June 30, 1962 there were budgeted in the one hundred counties and two city health departments a total of 1386 full time positions. Of this number 60 were health directors, 5 assistant health directors and 4 dentists. There were 39 supervising public health nurses, 523 staff nurses, 266 sanitarians, engineers, and veterinarians, 6 public health investigators, and 12 health educators. The remaining personnel consisted of 471 clerks, bacteriologists, technicians, mental health personnel, maids, etc. There were 33 budgeted positions unfilled because of unavailable funds and untrained personnel.

It is noted that the close of the biennium showed the average salary for all classifications of local health directors at \$12,222 as compared with the average salary of \$11,080 for the previous biennium.

During the biennium the Local Governmental Retirement Plan grew rapidly and as of June 30, 1962, 73 of the 100 counties provide their local health employees with this coverage. The attached pages show pertinent data sheets for the two fiscal years.

**TRAINING:** Within its available funds and resources, the State Board of Health, through the Local Health Division, assisted the following public health personnel in obtaining some type of training during the biennium, ranging in length from one week to one year, or more:

- 1 Health Director—expenses paid out of state to attend Conference sponsored by American Cancer Society and National Cancer Institute.
- 17 health directors given orientation at State Board of Health.
- 1 health director—orientation in Wake County Health Department.
- 1 Public Health Dentist—Tuition paid to University of North Carolina.
- 111 Public Health Nurses took five day observation and orientation courses at Dorothea Dix, John Umstead, Broughton and Cherry Mental Hospitals. Public Health Nurses took Specials Fields as follows: 26 T. C. Control; 49 in Chronic Disease Control; 35 Cancer Control, and 40 in Cardiovascular Diseases.
- 163 Public Health and Welfare workers had expenses paid for orientation at Caswell and O'Berry Schools.
- 22 Nurses—Course in "Principles and Practices of Public Health Nursing" and "Public Health Nurse in a Maternal Program."
- 4 nurses given scholarships at University of North Carolina.
- 1 nurse—Course in Sociology at University of North Carolina. Several nurses took Rehabilitation courses at Bird Coler Hospital, New York, New York Medical College, and Charlotte Rehabilitation Hospital.
- 2 nurses given training course at Rockville, Maryland, in "Radiological Health for Nurses."
- 3 Physical Therapists completed training at University of North Carolina and Duke University during biennium; 1 Physical Therapist now in training.
- 4 Psychiatric Social Workers—Scholarships at University of North Carolina and William and Mary College; 2 have completed, 2 now being trained.
- 2 Public Health Educators—Courses at University of North Carolina, 1 course out of state.
- 2 Biostatisticians, 1 Research Analyst I—Tuition paid.
- 65 Public Health workers attended Workshop in Community Mental Health at Pisgah View Ranch, Candler, N.C.—Tuition paid to University of North Carolina.
- 2 Laboratory Workers had out-of-state expenses paid for training in special lab work.
- 1 Sanitarian given an 18 months scholarship at University of North Carolina.
- 6 Sanitarians assigned to Coastal Health Departments as an emergency under an internship program.
- 17 Sanitarians given orientation in Local Health Departments.
- 31 Sanitarians—course in Milk and Food Technology at N. C. State College.
- 26 Sanitarians—4 weeks course in "Principles and Practice of Sanitation"—at University of North Carolina.
- 32 clerks from Local Health Departments given Records Short Course at University of North Carolina.

In addition to funds spent for above sponsored training, whenever possible and funds available, expenses were paid to enable public health personnel to attend seminars, institutes, conventions, conferences and workshops.

**RECORDS AND PROCEDURES ANALYSTS:** The eleventh and twelfth two-weeks courses in public health for clerical personnel in local health departments were held in October 1960 and February 1962. The total number of girls who have attended these courses is now 170.

The project of developing a Records Manual has begun to materialize. This manual would have instructions for each form which is furnished by the State Board of Health for use in local health departments.

Several years ago a State-wide Local Records Committee was organized whose membership is composed entirely of local health department staff members. One of the purposes of the committee is to review all the records that the State Board of Health furnishes for use by local health departments. At the present time, Dr. Isa Grant, Director of Public Health in Wake County, is Chairman. During the past two years, the committee has been very active, meeting at regular intervals.

This committee has given great assistance in the work of developing the Records Manual by reviewing the write-up of the instructions for each form.

Stimulating and encouraging the keeping of good records and reports continued to be the main goal for the Record Analysts as consultation was given to the clerks in the 102 departments.

*PUBLIC HEALTH NURSING SECTION:* Twenty-one nursing positions are budgeted by the State Board of Health, however, as of July 1, 1962 only 13 of these were filled.

The professional staff of the Public Health Nursing Section consists of a chief and seven generalized public health nursing consultants; three professional positions have remained vacant for the biennium. The resignation of the chief of the section and one consultant will reduce the professional staff to five and less than 50% of the budgeted positions will be filled. During the biennium, one nurse in the Crippled Children's Section retired and a Pediatric Nurse and Occupational Health Nurse Consultant resigned. A nurse consultant in the Nursing Home Section was added.

During the biennium, the staff of the Nursing Section made 1,690 visits to local health departments, an increase of 25% over the past biennium.

562 full-time nursing positions are budgeted by local health departments, an increase of 26 over the last biennium. These include 5 directors, 33 supervisors (a loss of 2), 528 staff public health nurses and 12 clinic nurses. The average ratio of public health nurse to population is approximately 1:8000.

The recruitment of staff nurses academically prepared in public health nursing and of nurses for leadership positions remains a crucial concern. Although more graduates of collegiate nursing programs are entering public health, the demand for additional public health nursing services necessitates the continued employment in local health departments of nurses who are not prepared in this speciality.

50% of the public health nurses have not completed a program of study in public health nursing but have completed one or more courses in public health nursing; 12% have not yet completed any courses in public health; 37% have completed an accredited program of study in public health nursing.

The staff education activities have concentrated on the orientation of nurses to public health, nursing services to the sick, services to the mentally ill and nursing in disaster. Eleven groups of nursing personnel of small health departments meet monthly for inservice programs. The University of North Carolina School of Public Health continues to provide courses to orient the nurses to public health.

At the present time, 19 health departments provide nursing services to the mentally ill—the same number as the last biennium. Fourteen health departments formally provide nursing services to the sick in their homes; the number of this type of visit in the state totalled 83,000 in 1961.

To evaluate activities and improve services, the public health nursing consultants have completed a time study and the Halifax County Health Department nursing staff has completed a time and cost study. From such studies, expenditures for public health nursing services have been determined.

**HEALTH EDUCATION SECTION:** Individual and community interest and action are essential for successful public health programs. The Health Education Section strives to stimulate interest and action by increasing the opportunities for the citizens of our state to gain information and build favorable attitudes toward health. Efforts of the Section staff are directed toward assistance to other Sections of the State Board of Health in the educational components of their programs, toward local health departments, and toward other state-wide organizations with an interest in health.

The staff consists of a Chief, three consultants, and one secretary. The Chief is responsible for administrative activities. The three consultants serve geographical Districts. All give consultation to other Sections of the State Board of Health and to state organizations.

A major focus of the Section is the promotion of health educators in local health departments. At the end of the biennium we have fourteen-and-a-half budgeted positions in ten local health units. Two of these positions are vacant and the Section is assisting the local health directors in finding qualified persons. The Chief has worked with the Mental Health Section in developing plans for a demonstration to use a local health educator as a part-time member of the Mental Health Clinic. The Section staff provided regular consultation through ninety-seven visits to local health educators and provided inservice training through semiannual staff conferences. The Section held a three-day Workshop on Family Life Education for health educators, other public health personnel, and selected community persons.

Counties without health educators were served on a request basis. Assistance was given in planning educational programs to reach specific groups with health needs, in developing the educational skills of staff members, and in the selection and development of materials to reinforce the learning process. The major requests were in the areas of mental health, family life education, school health, chronic diseases, and the interpretation of public health services. Further assistance was given through area inservice training programs with consultant nurses and sanitarians. One hundred and ninety-one visits were made to health departments without health educators.

The Staff takes an active part in many educational activities of the State Board of Health. The Chief was Chairman of the Communications Workshop for State Board of Health consultants. She assisted in developing plans for orientation of new health directors and served as Co-Chairman

for a series of District Meetings for members of local boards of health. One staff member serves on the Joint School Health Committee. Regular staff meetings with the Chief of the Accident Prevention Section and the health educator in the Oral Hygiene Division have increased the coordination of our educational efforts. Direct assistance has been given to other Sections for such educational activities as the Diabetes Seminars (Chronic Disease), the Food Service Institutes (Nutrition), the Newsletter (Nursing Home), Workshop on Group Education (Sanitation), Supervisors' Conference on Communication (Public Health Nursing).

The staff worked closely with many state organizations who have common interests in the promotion of health. The Chief served as Health Chairman of the P.T.A. and one staff member served as Mental Health Chairman. Both assisted with the Annual Family Life Workshops, Leadership Institutes, and District Meetings. Staff members assisted with the Teacher Workshops at High Point College, Catawba College, and East Carolina College. They assisted the Health Education Department at the School of Public Health, University of North Carolina, with field trips, training centers, and seminars. The Chief serves on the Executive Committee of the North Carolina Health Council and was Chairman of the State Health Careers Conference. A brochure was developed on *Health Careers for Tar Heels*. The Chief assisted in lay leadership training programs by the North Carolina Federation of Women's Clubs and the North Carolina Mental Health Association. Staff members worked with the State Medical Society on plans for tetanus immunization programs. They assisted with workshops of the North Carolina League for Nursing and the Nursing Institute of the North Carolina Alcohol Rehabilitation Program. One staff member served as President of the North Carolina Public Health Association for 1960-61.

At the close of the biennium the Section is seeking more effective ways of recruiting prospective health educators, opening positions in the larger populated counties, and extending services to small counties. With the development of new programs to meet modern public health problems, we visualize increased efforts on planned education to fit the people and the situation.

**MENTAL HEALTH SECTION:** During this biennium the community mental health program continued to expand. A new mental health center was established in Cleveland County. Community consultation and treatment programs were established in Edgecombe County, Rockingham County, Haywood County, Union County, Stanly County and Rocky Mount.

All other facilities showed additions to staff. During this biennium the number of professional staff members employed increased from sixty-two to eighty-three. Every center has at least one full team consisting of a psychiatrist, psychologist and psychiatric social worker.

The training program for professional personnel continued to expand. Five centers provide training for psychiatric residents; three for clinical psychologists and three for psychiatric social workers. The State Board of Health furnished stipends for the graduate training of four psychiatric social workers three of whom are now employed in community clinics in

this State. Large numbers of nurses spent a period of five days orientation in the nearest state hospital in preparation for nursing aftercare programs for mental patients discharged from the state hospitals. The State office has provided continuous consultation and training for all existing facilities. Local facilities have provided training for ministers, welfare workers, public health nurses, juvenile court personnel, law enforcement personnel and many other community groups. Four, twelve session seminars were conducted for nonpsychiatric physicians. A workshop was held on consultation for professional workers. Another was held on Lay Leadership for Mental Health.

The large State library of mental health films was increased and is in constant circulation to local community groups. The State library of mental health books was enlarged and continued to be circulated to the local communities. Thousands of mental health pamphlets were distributed free from the State Board of Health to lay groups throughout the State.

The nationally recognized Community Mental Health Workshop was continued during each year of this biennium and trained forty professional workers from North Carolina and a like number sent from agencies in twenty-five other states.

As a direct result of expanded services the number of patients seen in the mental health centers increased from 9,764 in the previous biennium to 11,722 in this biennium. The total number of interviews with or about patients increased from 62,797 in the previous biennium to 92,060 in this biennium.

Much of the above development and expansion of services was a result of an increase in State appropriations. Additional expansion was made possible by a decrease in unit costs per patient and per interview.

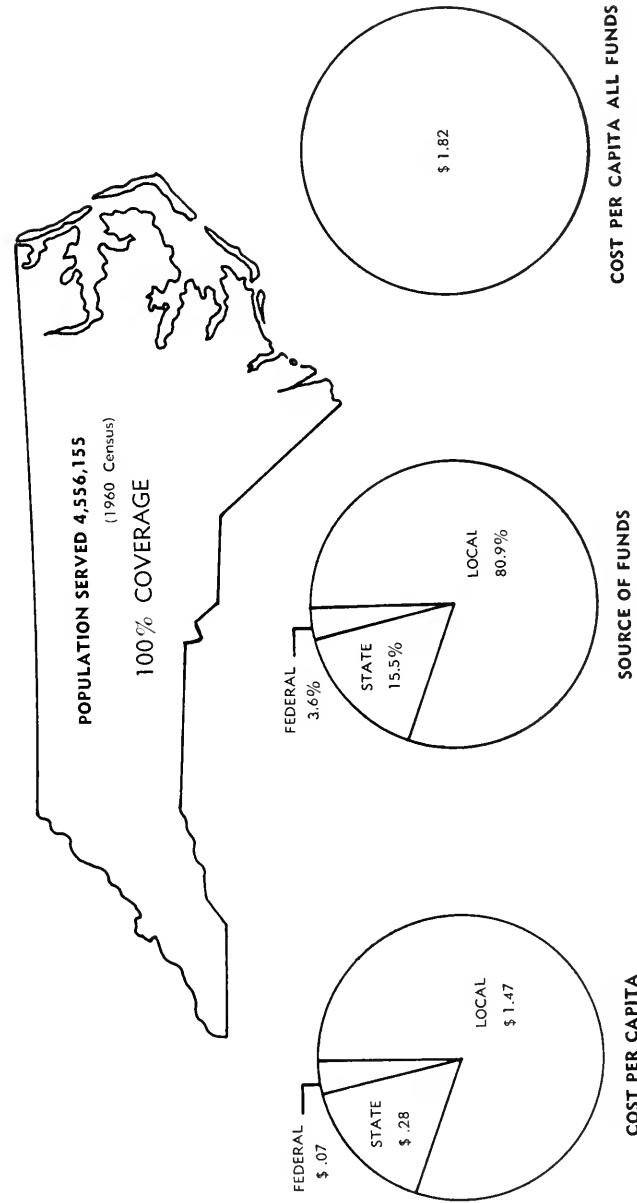
The following funds were budgeted for local programs for the biennium:

|         | 1960-61   | 1961-62   |
|---------|-----------|-----------|
| State   | \$145,000 | \$307,909 |
| Federal | 98,623    | 114,643   |
| Local   | 336,442   | 501,294   |
| <hr/>   |           |           |
| Total   | \$574,065 | \$923,846 |

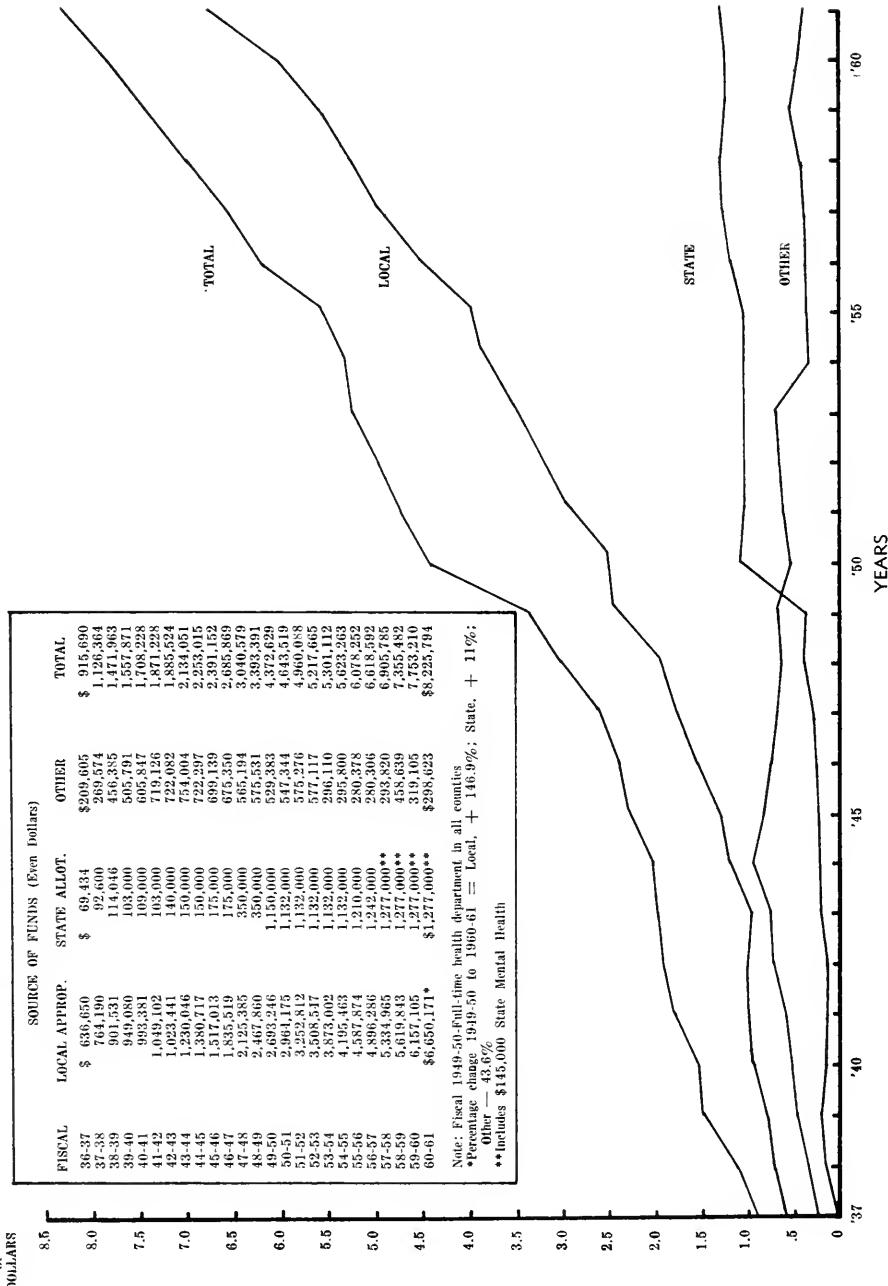
## NORTH CAROLINA LOCAL HEALTH SERVICE BUDGET

FISCAL YEAR 1960 - 1961

|  |                 |
|--|-----------------|
| TOTAL STATE FUNDS INCLUDING MENTAL HEALTH (REGULAR \$1,132,000 + \$145,000 M.H.) | \$ 1,277,000.00 |
| TOTAL FEDERAL FUNDS (REGULAR FUNDS \$200,000, MENTAL HEALTH \$98,623             | \$ 298,623.00   |
| TOTAL LOCAL FUNDS  | \$ 6,650,171.65 |
| TOTAL BUDGET LOCAL HEALTH  | \$ 8,225,794.65 |



## SOURCE OF FUNDS FOR LOCAL HEALTH DEPARTMENTS IN NORTH CAROLINA 1937-1961



**DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES—FISCAL YEAR 1960-61**

| County, City<br>or<br>District | 1960<br>Population | Date<br>Organized | Total Budget  |             | Source of Funds and Amounts                 |             | Full Time Personnel    |                              |             |          |          |          |                                  |               |      |
|--------------------------------|--------------------|-------------------|---------------|-------------|---|-------------|------------------------|------------------------------|-------------|----------|----------|----------|----------------------------------|---------------|------|
|                                |                    |                   | Amount        | Per<br>Cap. | State<br>Aidment<br>Inc.<br>St.<br>M.<br>H. | Per<br>Cap. | Local<br>Appropriation | Federal<br>Fed.<br>and other | Per<br>Cap. | H.<br>D. | H.<br>D. | H.<br>N. | Clerks<br>Sant.<br>and<br>Others | Dent.<br>Wks. |      |
| Alamance                       | 85,386             | 1938              | \$ 144,612.00 | \$ 1,694    | \$ 16,468                                   | \$ .193     | \$ 125,154.00          | \$ 1,466                     | \$ 2,490    | \$ .035  | 1        | 11s.     | 6s.                              | 6d.           | 30   |
| Alle-Asha-Watauga              | 44,890             | 1938-35           | 54,461.00     | 1,213       | 17,561                                      | .391        | 34,732.00              | .774                         | 2,168       | .048     | 1        | 3        | 3                                | 3             | 20   |
| Alleghany                      | 7,726              | 1938              | 9,803.00      | 1,269       | 4,327                                       | .560        | 5,144.00               | .666                         | 332         | .043     |          | 1        | 1                                | 1             |      |
| Ashe                           | 19,832             | 1938              | 19,630.00     | .993        | 6,631                                       | .334        | 12,068.00              | .609                         | 994         | .050     |          | 1        | 1                                | 1             |      |
| Watauga                        | 17,332             | 1935              | 19,832.00     | 1,144       | 5,939                                       | .343        | 13,051.00              | .753                         | 842         | .048     |          | 1        | 1                                | 1             | 10   |
| Anson                          | 24,811             | 1937              | 51,474.40     | 2,082       | 8,836                                       | .356        | 41,369.20              | 1,667                        | 1,463       | .059     | 1        | 3        | 3                                | 1             | 18   |
| Avery-Mitchell-Yancey          | 39,881             | 1935-4-35         | 40,176.46     | 1,007       | 16,488                                      | .413        | 21,736.46              | .546                         | 1,932       | .048     |          | 1        | 3                                | 3             |      |
| Avery                          | 11,971             | 1935              | 9,771.00      | .816        | 5,351                                       | .447        | 3,860.00               | .321                         | 570         | .048     |          | 1        | 1                                | 1             |      |
| Yancey                         | 13,887             | 1944              | 12,902.00     | .916        | 5,619                                       | .405        | 6,600.00               | .475                         | 683         | .049     |          | 1        | 1                                | 1             |      |
| Mitchell                       | 14,023             | 1935              | 12,734.00     | .908        | 5,805                                       | .414        | 6,250.00               | .446                         | 679         | .048     |          | 1        | 1                                | 1             | 0    |
| Beaufort                       | 7,755              | 1923              | 50,790.00     | 1,422       | 9,634                                       | .270        | 39,086.00              | 1,094                        | 2,070       | .058     | 1        | 2        | 2                                | 2             | 0    |
| Bertie                         | 2,212              | 1934              | 28,382.38     | 1,167       | 7,873                                       | .324        | 19,118.38              | .786                         | 1,392       | .057     | 1        | 2        | 2                                | 1             | 20   |
| Bladen                         | 28,678             | 1921              | 43,897.19     | 1,531       | 9,648                                       | .337        | 32,588.79              | 1,136                        | 1,661       | .058     | 1        | 4        | 2                                | 2             | 20   |
| Brunswick                      | 20,128             | 1949              | 31,973.00     | 1,589       | 9,430                                       | .469        | 21,349.00              | 1,060                        | 1,204       | .060     |          | 2        | 1                                | 2             | 10   |
| Buncombe (M.H.)                | 127,367            | 1913              | 397,825.00    | 3,124       | 37,268*                                     | .293        | 345,303.00             | 2,711                        | 15,254      | .120     | 1        | 1        | 7                                | 18            | 30d. |
| Burke                          | 52,349             | 1937              | 63,490.69     | 1,213       | 12,432                                      | .238        | 48,957.69              | .935                         | 2,101       | .040     | 1        | 4        | 2                                | 2             | 20   |
| Caldwell                       | 67,667             | 1919              | 136,788.55    | 1,024       | 15,924*                                     | .235        | 118,582.55             | 1,752                        | 2,276       | .034     | 1        | 1        | 1                                | 5             | 30   |
| Carroll                        | 49,415             | 1937              | 49,150.00     | .994        | 12,051                                      | .244        | 34,976.00              | .787                         | 2,123       | .043     | 1        | 1        | 1                                | 2             | 10   |
| Carterset                      | 27,419             | 1941              | 37,566.02     | 1,370       | 8,413                                       | .307        | 27,983.02              | 1,020                        | 1,170       | .043     | 1        | 3        | 3                                | 1             | 10   |
| Catawba-Lin-Alex               | 117,420            | 1938-40-47        | 173,698.72    | 1,479       | 29,885                                      | .254        | 139,123.72             | 1,185                        | 4,691       | .040     | 1        | 13s.     | 7                                | 6b.           | 0    |
| Catawba                        | 72,971             | 1938              | 96,724.00     | 1,326       | 14,781                                      | .293        | 79,198.00              | 1,085                        | 2,745       | .038     |          | 7        | 3                                | 4             | 0    |
| Lincoln                        | 28,874             | 1940              | 44,432.00     | 1,539       | 8,015                                       | .278        | 35,194.00              | 1,219                        | 1,293       | .042     |          | 3        | 2                                | 1             | 0    |
| Alexander                      | 15,575             | 1947              | 25,104.00     | 1,612       | 5,728                                       | .368        | 18,653.00              | 1,198                        | 723         | .046     |          | 2        | 1                                | 1             | 0    |
| Cherokee-Clay-Graham           | 28,290             | 1937              | 51,345.62     | 1,821       | 19,009                                      | .674        | 30,993.62              | 1,099                        | 1,343       | .048     | 1        | 4        | 2                                | 2             | 22   |
| Cherokee                       | 16,268             | 1937              | 22,083.00     | 1,357       | 6,121                                       | .376        | 15,162.00              | .932                         | 800         | .049     |          | 2        | 1                                | 1             |      |
| Clay                           | 5,483              | 1937              | 8,784.00      | 1,602       | 4,013                                       | .732        | 4,506.00               | .822                         | 265         | .048     |          | 1        | 1                                | 1             |      |
| Graham                         | 6,449              | 1937              | 11,119.00     | 1,735       | 4,187                                       | .649        | 6,726.00               | 1,043                        | 278         | .043     |          | 1        | 5                                | 3             | 30   |
| Cleveland                      | 66,433             | 1938              | 80,000.00     | 1,204       | 14,633                                      | .220        | 62,516.00              | .941                         | 2,851       | .043     |          | 1        | 4                                | 2             | 3    |
| Columbus                       | 48,272             | 1921              | 57,720.00     | 1,196       | 12,927                                      | .268        | 42,003.00              | .870                         | 2,790       | .058     |          | 1        | 4                                | 2             | 20   |
| Craven                         | 56,688             | 1921              | 75,455.52     | 1,286       | 13,092                                      | .223        | 59,644.52              | 1,016                        | 2,719       | .047     |          | 1        | 4s.                              | 2             | 5b.  |
| Cumberland (M.H.)              | 14,6,516           | 1919              | 179,414.23    | 1,224       | 33,478*                                     | .228        | 132,623.23             | .901                         | 13,913      | .095     | 1        | 11s.     | 6s.                              | 5t.           | 30   |
| Currituck-Dare                 | 12,509             | 1938-37           | 35,376.22     | 2,828       | 14,212                                      | .136        | 20,573.22              | .645                         | 591         | .047     | 1        | 2        | 1                                | 2             | 12   |
| Currituck                      | 6,543              | 1938              | 13,643.00     | 2,085       | 4,148                                       | .634        | 9,160.00               | 1,400                        | 335         | .051     |          | 1        | 1                                | 1             |      |

**DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES—FISCAL YEAR 1960-61**

| County, City<br>or<br>District | 1960<br>Population | Date<br>Organized | Total Budget |             |   | Source of Funds and Amounts |                        |             | Part Time Personnel<br>Merit System                  |             |                  |                             |                         |          |      |
|--------------------------------|--------------------|-------------------|--------------|-------------|---|-----------------------------|------------------------|-------------|--|-------------|------------------|-----------------------------|-------------------------|----------|------|
|                                |                    |                   | Amount       | Per<br>Cap. | State<br>Aid/ment<br>Inc. St.<br>M.<br>W. | Per<br>Cap.                 | Local<br>Appropriation | Per<br>Cap. | Federal<br>Inc.<br>Fed. M.<br>H.<br>H.<br>D.<br>Med. | Per<br>Cap. | H.<br>D.<br>Med. | Clerks<br>Sant.<br>H.<br>N. | Dent.<br>Wks.<br>Others |          |      |
| Dare                           | 5,966              | 1937              | \$13,821.00  | \$2,317     | \$3,965                                   | \$665                       | \$9,600.00             | \$1,609     | \$256  | \$0.043     | 1                | 1                           | 1                       | 4b.      | 30   |
| Davidson                       | 79,013             | 1917              | 91,289.00    | 1,155       | 15,764                                    | 199                         | 72,517.00              | .998        | 3,408  | .038        | 1                | 1                           | 1                       | 2        | 20   |
| Davie-Yadkin                   | 39,342             | 1938-31           | 54,535.62    | 1,388       | 13,495                                    | 343                         | 39,514.62              | 1,005       | 1,558  | .040        | 1                | 1                           | 1                       | 2        | 1    |
| Davie                          | 16,692             | 1938              | 16,502.00    | 1,374       | 6,678                                     | 341                         | 16,582.00              | .995        | 632  | .038        | 1                | 1                           | 1                       | 2        | 1    |
| Yadkin                         | 22,673             | 1931              | 24,097.00    | 1,063       | 6,791                                     | 300                         | 16,382.00              | .723        | 914  | .040        | 1                | 1                           | 1                       | 2        | 1    |
| Duplin                         | 40,155             | 1934              | 53,987.00    | 1,344       | 11,818                                    | 295                         | 39,892.80              | .993        | 2,247  | .056        | 1                | 1                           | 1                       | 2        | 20   |
| Durham (M. H.)                 | 113,083            | 1913              | 322,097.64   | 2,848       | 53,623*                                   | 11,692                      | 258,089.64             | 2,282       | 10,385   | .092        | 1                | 1                           | 1                       | 11       | 13d. |
| Edgecombe (Ex. R.M.)           | 38,956             | 1919              | 63,511.47    | 1,630       | 11,062                                    | .285                        | 50,211.47              | 2,148       | .055   | .055        | 1                | 1                           | 1                       | 2        | 20   |
| Forsyth (M. H.)                | 188,229            | 1913              | 370,375.27   | 1,968       | 43,555                                    | .232                        | 307,558.27             | 1,634       | 19,232   | .102        | 1                | 1                           | 1                       | 24d.s.12 | 30d. |
| Franklin                       | 28,547             | 1930              | 39,034.30    | 1,367       | 8,539                                     | .299                        | 28,834.30              | 1,010       | 1,661  | .058        | 1                | 1                           | 1                       | i.       | 2    |
| Gaston (M. H.)                 | 126,998            | 1928              | 272,200.00   | 2,144       | 26,124                                    | .206                        | 239,619.00             | 1,887       | 6,457  | .051        | 1                | 1                           | 1                       | 17       | 11   |
| Granville                      | 32,942             | 1919              | 50,172.44    | 1,523       | 9,022                                     | .274                        | 46,466.44              | 1,198       | 1,684  | .051        | 1                | 1                           | 1                       | 2        | 20   |
| Greene                         | 16,787             | 1937              | 34,280.43    | 2,042       | 6,845                                     | .408                        | 26,455.43              | 1,516       | 980  | .058        | 1                | 1                           | 1                       | 1        | 10   |
| Guildford (M. H.)              | 245,478            | 1911              | 663,600.00   | 2,703       | 53,001*                                   | .216                        | 591,860.00             | 2,411       | 18,719   | .076        | 1                | 1                           | 1                       | 37       | 18v. |
| Halifax (M. H.)                | 58,816             | 1919              | 116,735.01   | 1,985       | 17,111*                                   | .291                        | 94,511.01              | 1,607       | 5,113  | .087        | 1                | 1                           | 1                       | 10       | 3    |
| Harnett                        | 48,173             | 1938              | 54,400.00    | 1,130       | 11,787                                    | .245                        | 40,288.00              | .836        | 2,365  | .049        | 1                | 1                           | 1                       | 5s.      | 20   |
| Haywood                        | 39,505             | 1934              | 61,295.00    | 1,550       | 10,402*                                   | .263                        | 49,314.00              | 1,240       | 1,499  | .038        | 1                | 1                           | 1                       | 4        | 3b.  |
| Henderson                      | 35,817             | 1947              | 42,259.77    | 1,180       | 8,920                                     | .249                        | 31,891.77              | .890        | 1,448  | .041        | 1                | 1                           | 1                       | 2        | 20   |
| Hertford-Gates                 | 31,897             | 1936-40           | 47,894.08    | 1,501       | 12,206                                    | .383                        | 33,813.08              | 1,060       | 1,845  | .058        | 1                | 1                           | 1                       | 4        | 1    |
| Hertford                       | 22,584             | 1936              | 31,212.66    | 1,382       | 7,399                                     | .328                        | 22,533.66              | .998        | 1,280  | .056        | 1                | 1                           | 1                       | 2        | 20   |
| Gates                          | 9,313              | 1940              | 16,638.83    | 1,787       | 4,807                                     | 516                         | 11,266.83              | 1,210       | 565  | .061        | 1                | 1                           | 1                       | 6h.      | 20   |
| Hoke                           | 16,360             | 1943              | 27,223.60    | 1,665       | 6,708                                     | .410                        | 19,453.60              | 1,189       | 1,072  | .066        | 1                | 1                           | 1                       | 2        | 20   |
| Hyde                           | 5,764              | 1937              | 13,781.08    | 2,391       | 5,318                                     | .923                        | 8,137.08               | 1,412       | 326  | .056        | 1                | 1                           | 1                       | 1        | 10   |
| Iredell                        | 61,970             | 1942              | 73,888.00    | 1,192       | 13,424                                    | .217                        | 57,815.00              | .933        | 2,619  | .042        | 1                | 1                           | 1                       | 5        | 31.  |
| Jackson, Macon-Swain           | 40,923             | 1934-36-34        | 59,684.66    | 1,458       | 17,088                                    | .417                        | 40,663.66              | .991        | 1,933  | .047        | 1                | 1                           | 1                       | 3        | 30   |
| Jackson                        | 17,699             | 1934              | 19,695.00    | 1,113       | 6,003                                     | .339                        | 12,861.00              | .727        | 831  | .047        | 1                | 1                           | 1                       | 1        | 1    |
| Macon                          | 14,847             | 1936              | 18,298.83    | 1,252       | 5,666                                     | .382                        | 11,966.83              | .866        | 656  | .044        | 1                | 1                           | 1                       | 1        | 1    |
| Swain                          | 8,377              | 1934              | 14,876.94    | 1,776       | 4,544                                     | .443                        | 9,886.94               | 1,190       | 446  | .053        | 1                | 1                           | 1                       | 1        | 10   |
| Johnston                       | 62,685             | 1937              | 48,029.96    | 1,766       | 14,620                                    | .233                        | 30,565.96              | .488        | 2,844  | .045        | 1                | 1                           | 1                       | 2        | 20   |
| Jones                          | 11,008             | 1949              | 21,906.00    | 1,990       | 5,154                                     | .468                        | 16,110.00              | 1,464       | 642  | .058        | 1                | 1                           | 1                       | 2        | 10   |
| Lenoir                         | 55,272             | 1917              | 85,705.90    | 1,551       | 14,543                                    | .563                        | 66,767.90              | 1,208       | 4,440  | .080        | 1                | 1                           | 1                       | 5        | 1    |
| McBowell                       | 26,640             | 1945              | 34,726.00    | 1,303       | 8,372                                     | .314                        | 25,279.00              | .949        | 1,075  | .040        | 1                | 1                           | 1                       | 2        | 20   |
| Madison                        | 17,060             | 1949              | 48,439.00    | 1,464       | 10,028                                    | .353                        | 18,145.00              | 1,064       | 807  | .047        | 1                | 1                           | 1                       | 2        | 20   |
| Martin                         | 27,072             | 1917              | 48,439.02    | 1,791       | 9,338                                     | .347                        | 37,500.02              | 1,385       | 1,606  | .059        | 1                | 1                           | 1                       | 3        | 20   |
| Mecklenburg (Ex. C.)           | 70,084             | 1918              | 259,913.00   | 3,709       | 16,571                                    | .237                        | 239,579.00             | 3,418       | 3,763  | .054        | 1                | 1                           | 1                       | 19s.     | 8    |

|                            |         |            |             |         |         |          |              |          |         |         |
|----------------------------|---------|------------|-------------|---------|---------|----------|--------------|----------|---------|---------|
| Montgomery .....           | 18,301  | 1942       | \$26,093.50 | \$1,426 | \$ .347 | \$ 6,348 | \$ 18,835.50 | \$ 1,029 | \$ .910 | \$ .050 |
| Moore .....                | 36,643  | 1928       | 44,760.00   | 1,222   | 9,360   | .256     | 43,831.00    | .923     | 1,569   | .043    |
| Nash (Ex. R. M.) .....     | 43,840  | 1915       | 58,622.60   | 1,338   | 12,448  | .284     | 43,949.60    | 1,002    | 2,265   | .052    |
| New Hanover (M. H.) .....  | 71,412  | 1913       | 189,533.56  | 2,654   | 17,804  | .349     | 165,859.56   | 2,323    | 5,870   | .082    |
| Northampton .....          | 26,617  | 1917       | 44,583.00   | 1,675   | 9,410   | .354     | 33,650.00    | 1,263    | 1,533   | .058    |
| Onslow .....               | 83,494  | 1941       | 60,175.85   | .721    | 13,108  | .157     | 43,871.85    | .526     | 3,196   | .038    |
| Orange-P-C-L-Caswell ..... | 142,401 | 1935-37    | 226,364.66  | 1,590   | 50,085* | .352     | 169,850.66   | 1,193    | 6,429   | .045    |
| Orange .....               | 42,940  | 1935       | 42,613.00   | .993    | 8,666   | .202     | 32,500.00    | .757     | 1,477   | .034    |
| Person .....               | 26,314  | 1935       | 37,134.00   | 1,411   | 7,803   | .297     | 28,000.00    | 1,064    | 1,331   | .2      |
| Chatham .....              | 26,635  | 1937       | 31,162.00   | 1,170   | 7,885   | .296     | 22,000.00    | .895     | 1,277   | .048    |
| Lee .....                  | 26,532  | 1946       | 32,215.00   | 1,216   | 7,676   | .289     | 23,400.00    | .882     | 1,199   | .045    |
| Caswell .....              | 19,980  | 1944       | 22,977.00   | 1,216   | 6,882   | .344     | 15,000.00    | .751     | 2,222   | .1      |
| Panlico (Ex-Caswell) ..... | 9,810   | 1949       | 16,759.00   | 1,708   | 7,448   | .759     | 8,755.00     | .895     | 526     | .054    |
| Pasq-P-Per-C-Chowan .....  | 51,781  | 1942-43-37 | 78,775.43   | 1,521   | 22,496  | .434     | 53,853.43    | 1,035    | 2,696   | .052    |
| Pasquotank .....           | 25,393  | 1949       | 31,173.00   | 1,251   | 7,326   | .288     | 23,850.00    | .914     | 1,937   | .049    |
| Perquimans .....           | 9,165   | 1943       | 14,327.00   | 1,563   | 4,760   | .519     | 9,045.70     | .987     | 522     | .057    |
| Camden .....               | 5,583   | 1943       | 9,318.55    | 1,669   | 4,019   | .500     | 5,000.55     | .896     | 299     | .053    |
| Chowan .....               | 11,640  | 1937       | 17,858.66   | 1,534   | 5,208   | .447     | 12,012.66    | 1,032    | 638     | .055    |
| Pender .....               | 18,456  | 1941       | 27,051.00   | 1,466   | 7,056   | .382     | 18,948.00    | 1,027    | 1,047   | .057    |
| Pitt (M. H.) .....         | 69,511  | 1917       | 153,892.00  | 2,214   | 26,577  | .382     | 113,732.45   | 1,637    | 13,522  | .195    |
| Randolph .....             | 61,332  | 1927       | 72,113.53   | 1,180   | 12,485  | .204     | 57,335.58    | .938     | 2,293   | .038    |
| Richmond .....             | 39,232  | 1924       | 53,402.00   | 1,361   | 10,331  | .263     | 41,198.00    | 1,050    | 1,873   | .048    |
| Robeson .....              | 88,609  | 1912       | 99,832.00   | 1,127   | 21,813  | .246     | 72,537.00    | .819     | 5,523   | .062    |
| Rockingham .....           | 69,089  | 1940       | 89,604.81   | 1,297   | 15,380  | .223     | 71,479.81    | 1,034    | 2,736   | .046    |
| Rowan (M. H.) .....        | 81,859  | 1918       | 131,507.49  | 1,606   | 20,418* | .249     | 105,249.49   | 1,285    | 5,780   | .072    |
| Rutherford-Polk .....      | 55,669  | 1924-38    | 59,932.33   | 1,076   | 17,094  | .307     | 40,315.33    | .725     | 2,464   | .044    |
| Rutherford .....           | 44,357  | 1924       | 40,292.00   | .908    | 10,818  | .244     | 27,411.00    | .620     | 1,963   | .044    |
| Polk .....                 | 11,312  | 1934       | 12,874.00   | 1,138   | 5,027   | .445     | 7,316.00     | .649     | 501     | .044    |
| Samson .....               | 47,946  | 1918       | 60,414.88   | 1,260   | 12,430  | .259     | 45,269.88    | .943     | 2,775   | .058    |
| Scotland .....             | 24,910  | 1943       | 48,751.48   | 1,951   | 8,329   | .333     | 38,854.48    | 1,554    | 1,588   | .064    |
| Stanly .....               | 40,519  | 1937       | 44,531.26   | 1,099   | 9,714   | .240     | 33,248.23    | .821     | 1,549   | .038    |
| Stokes .....               | 22,176  | 1931       | 42,901.00   | 1,935   | 6,690   | .302     | 35,315.00    | .866     | 1,594   | .039    |
| Surry .....                | 48,041  | 1919       | 76,682.02   | 1,506   | 12,193  | .254     | 62,590.02    | 1,303    | 5,189   | .039    |
| Transylvania .....         | 16,102  | 1937       | 24,210.00   | 1,504   | 6,179   | .384     | 17,419.00    | 1,082    | 612     | .038    |
| Tyrell-Washington .....    | 18,001  | 1937       | 33,130.84   | 1,841   | 10,121  | .362     | 22,008.84    | 1,001    | 1,223   | .056    |
| Tyrell .....               | 4,494   | 1937       | 8,760.16    | 1,949   | 3,874   | .862     | 4,614.16     | 1,033    | 242     | .054    |
| Washington .....           | 13,507  | 1937       | 19,346.00   | 1,432   | 5,662   | .419     | 12,925.00    | .957     | 759     | .056    |
| Union .....                | 44,416  | 1938       | 61,741.01   | 1,380   | 10,858  | .244     | 48,680.01    | 1,096    | 2,223   | .050    |
| Vance .....                | 31,338  | 1920       | 39,337.24   | 1,255   | 8,390   | .284     | 28,815.24    | .919     | 1,632   | .052    |
| Watauga .....              | 168,835 | 1918       | 299,432.79  | 1,774   | 45,289* | .268     | 234,039.79   | 1,386    | 20,154  | .20d    |
| Warren .....               | 19,757  | 1945       | 30,901.18   | 1,564   | 11,857  | .600     | 17,881.18    | .905     | 1,163   | .059    |
| Wayne .....                | 81,623  | 1920       | 119,276.32  | 1,461   | 16,079  | .197     | 99,128.32    | 1,214    | 4,069   | .050    |
| Wayne .....                | 81,623  | 1920       | 119,276.32  | 1,461   | 16,079  | .197     | 99,128.32    | 1,214    | 83      | .4      |

# DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES—FISCAL YEAR 1960-61

| County, City<br>or<br>District     | 1960<br>Population | Date<br>Organized | Total Budget   |             | Source of Funds and Amounts           |             |                           | Part<br>Time  |          |          | Full Time Personnel<br>Merit System |                         |      |
|------------------------------------|--------------------|-------------------|----------------|-------------|---------------------------------------|-------------|---------------------------|---------------|----------|----------|-------------------------------------|-------------------------|------|
|                                    |                    |                   | Amount         | Per<br>Cap. | State<br>Aidment<br>Inc. St.<br>M. H. | Per<br>Cap. | Local<br>Appropriation    | Per<br>Cap.   | H.<br>D. | H.<br>D. | M.<br>H.                            | Clerks<br>and<br>Others |      |
| Wilkes (M. H.) .....               | 45,127             | 1920              | 32,683.95      | .724        | 11,545                                | .256        | 18,957.95                 | .420          | .048     | 1        | 4                                   | 2                       | 1    |
| Wilson (M. H.) .....               | 57,531             | 1916              | 139,910.00     | 2.432       | 25,649                                | .446        | 99,846.00                 | 1.736         | .250     | 1        | 4                                   | 6                       | 3    |
| Total Counties .....               | 4,298,931          |                   | 7,306,932.65   | 1,700       | 1,225,358                             | .285        | 5,796,939.65              | 1,349         | 284,615  | .066     | 14                                  | 51                      | 4    |
| Charlotte (M. H.) .....            | 200,882            | 1918              | 843,452.00     | 4.199       | 57,903*                               | .288        | 773,917.00                | 3,853         | 11,632   | .058     | 11                                  | 50                      | 27   |
| Rocky Mount .....                  | 32,021             |                   | 86,977.00      | 2.716       | 5,992                                 | .187        | 79,295.00                 | 2,476         | 1,690    | .053     | 5                                   | 8                       | 71.  |
| Total Cities .....                 | 232,903            |                   | 930,429.00     | 3.995       | 63,895                                | .274        | 853,212.00                | 3,664         | 13,322   | .057     | 0                                   | 0                       | 11   |
| Combined Total .....               | 4,531,834          |                   | 8,237,361.65   | 1,818       | 1,289,253                             | .285        | 6,650,171.65              | 1,467         | 297,937  | .066     | 14                                  | 51                      | 4    |
| Over budgeted and unbudgeted funds |                    |                   | -11,567.00     |             |                                       |             | -12,253                   |               |          |          |                                     |                         | +686 |
| Grand Total .....                  | 4,531,834          |                   | \$8,225,794.65 | \$1,815     | \$1,277,000**                         | \$ .282     | \$6,650,171.65***\$ 1,467 | \$298,623**** | \$ .066  | 14       | 51                                  | 4                       | 63   |

\* Includes funds for Training Centers (10 Centers—One Co. Lab. Total \$24,700)

\*\* State Mental Health Fund (\$145,000) included (See Departments—M. H.)

\*\*\* Local Appropriation includes balance (brought forward) of \$326,407.14 from fiscal year 1959-60

\*\*\*\* Federal Mental Health Funds (\$38,623) included (See Departments—M. H.)

Regular Federal funds allocated to Health Departments (\$200,000)

The Local breakdown of individual counties in the Districts does not include any special funds, extra funds or balances.

Special Project funds are not included. Special State Aid to six departments (Brunswick, Cherokee, Clay, Graham, Currituck-Dare, Hyde, Pamlico and Warren,) in the amount of \$21,135

dn—Public Health Nursing Director

ds—Director of Sanitation Activities

s—Public Health Nursing Supervisor

v—Veterinarian

i—Public Health Investigator

b—Bacteriologist

d—Dentist

ed—Health Educator

n—Nutritionist

t—Technician

a.a.—Adm. Assistant

M. H.—Mental Health Personnel

Ex—Exclusive of

C—Charlotte

R. M.—Rocky Mount

**PERTINENT INFORMATION ON LOCAL HEALTH DEPARTMENTS—Fiscal Year 1960-61**

| Departments           | Under Local Gov. Retirement | Contract Travel Plan | Per Capita Buying Income | Per Capita Local Approp. | Group Hospitalization | Group Medical Care | Dental Deduction | Days Work Week |
|-----------------------|-----------------------------|----------------------|--------------------------|--------------------------|-----------------------|--------------------|------------------|----------------|
| Alamance              | 3 Cos.                      | \$ 35 + 7¢           | \$ 1513                  | \$ 1,466                 | No report             | No report          | No               | 5½ Each        |
| Allieg-Anse-Watauga   | Yes                         | 7¢                   | 1066                     | .774                     | No                    | No                 | \$ 72.00         | 5              |
| Alleghany             | 7¢                          | 7¢                   | 924                      | .666                     | No                    | No                 | No               | 5              |
| Ashie                 | 7¢                          | 7¢                   | 927                      | .609                     | No                    | No                 | No               | 5              |
| Watagua               | 7¢                          | 7¢                   | 951                      | .753                     | No                    | No                 | No               | 5              |
| Anson                 | 1 Co.                       | 7¢                   | 951                      | 1.667                    | Yes                   | No                 | No               | 5½ Each        |
| Avery-Mitchell-Yancey | 7¢                          | 7¢                   | 951                      | .546                     | No                    | No                 | No               | 5              |
| Avery                 | 7¢                          | 7¢                   | 934                      | .321                     | No                    | No                 | No               | 5              |
| Mitchell              | 7¢                          | 7¢                   | 943                      | .475                     | No                    | No                 | No               | 5              |
| Yancey                | 7¢                          | 7¢                   | 877                      | .446                     | No                    | No                 | No               | 5              |
| Beaufort              | Co furnish cars             | 1010                 | 1,094                    | 1.094                    | Yes                   | No                 | No               | 377.00         |
| Bertie                | 30 + 4¢                     | 978                  | 786                      | .786                     | No                    | No                 | No               | 5½             |
| Bladen                | 7¢                          | 7¢                   | 912                      | 1.136                    | No report             | No report          | No report        | 5              |
| Brunswick             | 7¢                          | 7¢                   | 881                      | 1.060                    | No report             | No report          | No report        | 5½             |
| Buncombe              | Yes                         | 1 Co.                | 1482                     | 2.711                    | Yes                   | No                 | No               | 5              |
| Burke                 | Yes                         | 30 + 4¢              | 1089                     | .935                     | No report             | No report          | No report        | 5½             |
| Calhoun               | Yes                         | 20 + 7¢              | 1468                     | 1.752                    | Yes                   | No                 | No               | 5              |
| Caldwell              | Yes                         | 30 + 4¢              | 1160                     | .787                     | Yes                   | Yes                | No               | 5½             |
| Carterset             | Yes                         | 30 + 4¢              | 1222                     | 1.070                    | No                    | No                 | No               | 5              |
| Catawba               | 3 Cos.                      | 35 + 4¢              | 1,185                    | 1.085                    | Yes                   | Yes                | Yes              | 5 Each         |
| Lin-Alex.             | Yes                         | 35 + 4¢              | 1353                     | 1.085                    | Yes                   | Yes                | Yes              | 5              |
| Catawba               | 35 + 4¢                     | 1102                 | 1,219                    | 1.219                    | Yes                   | Yes                | Yes              | 5              |
| Lincolne              | 35 + 4¢                     | 995                  | 1,198                    | 1.198                    | Yes                   | Yes                | Yes              | 5              |
| Alexander             | 35 + 4¢                     | 995                  | 1,099                    | 1,099                    | No                    | No                 | No               | 5              |
| Cherokee-Clay-Graham  | 30 + 4¢                     | 910                  | .932                     | .932                     | No                    | No                 | No               | 5              |
| Cherokee              | 30 + 4¢                     | 791                  | .822                     | .822                     | No                    | No                 | No               | 5              |
| Clay                  | 30 + 4¢                     | 982                  | 1,043                    | 1,043                    | No                    | No                 | No               | 5              |
| Graham                | 30 + 4¢                     | 1236                 | .941                     | .941                     | Yes                   | No                 | No               | 5½             |
| Cleveland             | 7¢                          | 15 + 7¢              | 1013                     | .870                     | Yes                   | No                 | No               | 5              |
| Columbus              | 30 + 4¢                     | 1334                 | 1,016                    | 1,016                    | Yes                   | No                 | No               | 5½             |
| Craven                | 30 + 4¢                     | 1,240                | .301                     | .301                     | Yes                   | No                 | No               | 5½             |
| Cumberland            | 30 + 4¢                     | 1177                 | 1,645                    | 1,645                    | No                    | No                 | No               | 5 Each         |
| Curtis-Care-Dare      | 30 + 4¢                     | 1119                 | 1,400                    | 1,400                    | No                    | No                 | No               | 5              |
| Dare                  | 30 + 4¢                     | 1,609                | .918                     | .918                     | Yes                   | No                 | No               | 5              |
| Davidson              | 7¢                          | 1313                 | 1,005                    | 1,005                    | No                    | No                 | No               | 5½ Each        |
| Davis-Yadkin          | 7¢                          | 1285                 | .995                     | .995                     | No                    | No                 | No               | 5              |
| Davis                 | 7¢                          | 1091                 | .723                     | .723                     | No                    | No                 | No               | 6              |
| Yadkin                | 7¢                          | 7¢                   | No                       | No                       | No                    | No                 | No               | 6              |

# PERTINENT INFORMATION ON LOCAL HEALTH DEPARTMENTS — Fiscal Year 1960-61

| Departments                   | Under Local Gov. Retirement | Contract Travel Plan | Per Capita Buying Income | Per Capita Local Approp. | Group Hospitalization | Group Medical Care | Dental Deduction | Days Work Week |
|-------------------------------|-----------------------------|----------------------|--------------------------|--------------------------|-----------------------|--------------------|------------------|----------------|
| Duplin . . . . .              | Yes 1 Co.                   | \$ 30 + 7¢           | \$ 914                   | \$ .993                  | Yes                   | No                 |                  | 5 1/2          |
| Durham . . . . .              | Yes 1 Co.                   | 30 + 6¢              | 1,653                    | 2,282                    | Yes                   | No                 |                  | 5              |
| Edgecombe . . . . .           | Yes 1 Co.                   | 8¢                   | 1,152                    | 1,290                    | Yes                   | Yes                |                  | 5              |
| Forsyth . . . . .             |                             | 10 + 7¢              | 1,644                    | 1,634                    | Yes                   | No                 |                  | 5              |
| Franklin . . . . .            |                             | 70 flat              | 1,012                    | 1,010                    | No                    | No                 |                  | 5              |
| Gaston . . . . .              |                             | 30 + 4¢              | 1,399                    | 1,887                    | Yes                   | Yes                |                  | 5              |
| Granville . . . . .           |                             | 30 + 4¢              | 1,030                    | 1,198                    | No                    | No                 |                  | 5              |
| Greene . . . . .              | Yes 1 Co.                   | 70 and 60 flat       | 1,024                    | 1,575                    | No report             | No report          |                  | 5              |
| Gulford . . . . .             | Yes 1 Co.                   | 15 + 4¢ up to 7¢     | 1,705                    | 2,411                    | Yes                   | No                 |                  | 5              |
| Halifax . . . . .             |                             | 30 + 4¢              | 1,122                    | 1,607                    | No                    | No                 |                  | 5              |
| Harnett . . . . .             |                             | 35 + 4¢              | 1,136                    | 836                      | Yes                   | No                 |                  | 5              |
| Haywood . . . . .             |                             | 7¢                   | 1,283                    | 1,249                    | Yes                   | No                 |                  | 5              |
| Henderson . . . . .           | Yes 1 Co.                   | 35 + 4¢              | 1,246                    | .890                     | Yes                   | Yes                |                  | 5              |
| Hertford-Gates . . . . .      |                             | 30 + 4¢              | 1,060                    | No report                | No report             | No report          |                  | 5              |
| Gates . . . . .               |                             | 30 + 4¢              | 928                      | .998                     | No report             | No report          |                  | 5              |
| Hoke . . . . .                | Yes 1 Co.                   | 30 + 4¢              | 858                      | 1,210                    | No report             | No report          |                  | 5              |
| Hyde . . . . .                |                             | 7¢                   | 810                      | 1,189                    | Yes                   | No                 |                  | 5              |
| Iredell . . . . .             |                             | 30 + 4¢              | 891                      | 1,412                    | No                    | No                 |                  | 5              |
| Jackson-Macon-Swain . . . . . | Yes 3 Cos.                  | 30 + 4¢              | 1,250                    | 1,933                    | Yes                   | No                 |                  | 5 1/2          |
| Jackson . . . . .             |                             | 30 + 4¢              | 927                      | .994                     | Yes                   | Yes                |                  | 5              |
| Macon . . . . .               |                             | 30 + 4¢              | 928                      | 727                      | Yes                   | Yes                |                  | 5              |
| Swain . . . . .               |                             | 30 + 4¢              | 916                      | .806                     | Yes                   | Yes                |                  | 5              |
| Johnston . . . . .            |                             | 6.5¢                 | 1,033                    | 1,488                    | Yes                   | Yes                |                  | 5 1/2          |
| Jones . . . . .               |                             | 30 + 4¢              | 916                      | 1,464                    | No                    | No                 |                  | 5              |
| Lenoir . . . . .              |                             | 20 + 7¢              | 1,215                    | 1,208                    | Yes                   | Yes                |                  | 5              |
| McDowell . . . . .            | Yes 1 Co.                   | 30 + 4¢              | 1,173                    | .949                     | No                    | Yes                |                  | 5              |
| Madison . . . . .             |                             | 7¢                   | 980                      | 1,064                    | Yes                   | No                 |                  | 5              |
| Martin . . . . .              | Yes 1 Co.                   | 10 + 7¢              | 908                      | 1,385                    | Yes                   | No                 |                  | 5 1/2          |
| Mecklenburg . . . . .         | Yes 1 Co.                   | Ce. furnish cars     | 1,785                    | 3,418                    | Yes                   | No                 |                  | 6              |
| Montgomery . . . . .          |                             | 30 + 4¢              | 1,069                    | 1,029                    | Yes                   | Yes                |                  | 5              |
| Moore . . . . .               |                             | 7¢                   | 1,253                    | .923                     | Yes                   | Yes                |                  | 5              |
| Nash . . . . .                | Yes 1 Co.                   | 30 + 4¢              | 1,219                    | 1,002                    | Yes                   | No                 |                  | 5 1/2          |
| New Hanover . . . . .         |                             | 30 + 4¢              | 1,430                    | 2,323                    | No report             | No report          |                  | 5              |
| Northampton . . . . .         | Yes 1 Co.                   | 7¢                   | 887                      | 1,263                    | Yes                   | No                 |                  | 5              |
| Onslow . . . . .              |                             | 7¢                   | 1,263                    | .526                     | Yes                   | No                 |                  | 5 1/2          |
| Orange-P.C.L.C . . . . .      | Yes 5 Cos.                  | 30 + 4¢              | 1,757                    | 1,193                    | Yes                   | No                 |                  | 5              |
| Orange . . . . .              |                             | 30 + 4¢              | 1,568                    | 1,029                    | Yes                   | No                 |                  | 5              |
| Person . . . . .              |                             | 30 + 4¢              | 1,091                    | 1,064                    | Yes                   | No                 |                  | 5              |
| Chatham . . . . .             |                             | 30 + 4¢              | 1,067                    | .826                     | Yes                   | No                 |                  | 5              |
| Lee . . . . .                 |                             | 30 + 4¢              | 1,321                    | .882                     | Yes                   | No                 |                  | 5              |
| Caswell . . . . .             |                             | 30 + 4¢              | 921                      | .751                     | Yes                   | No                 |                  | 5              |

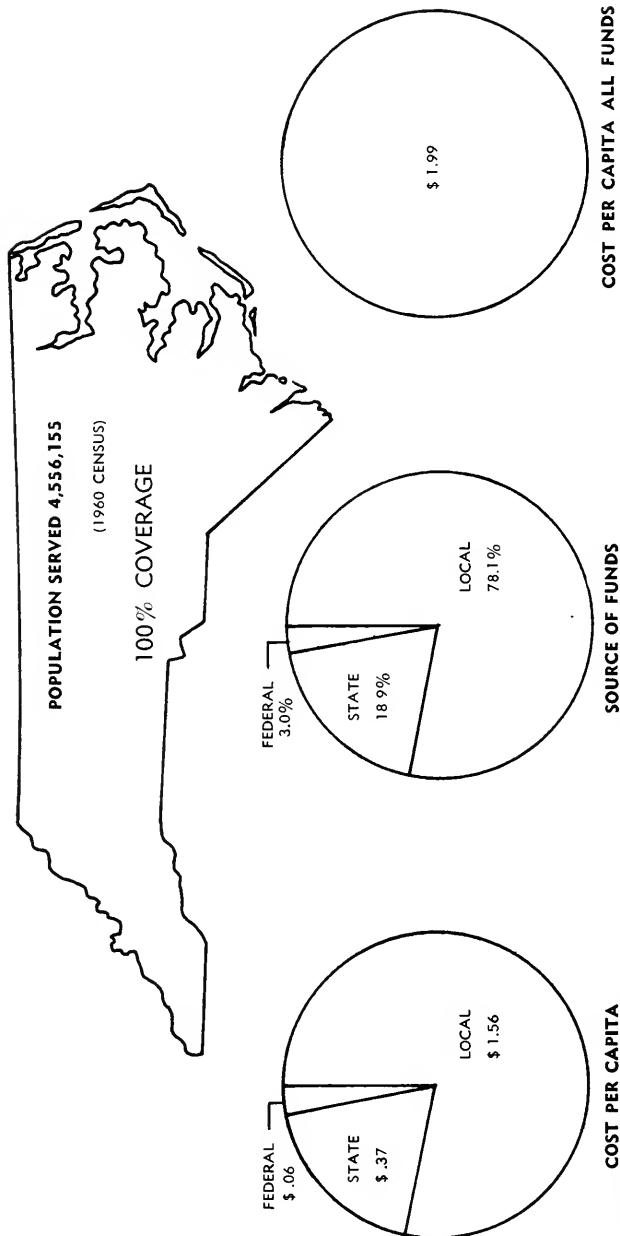
| Departments        | Under Local Gov. Retirement | Contract Travel Plan          | Per Capita Buying Income | Local Appropriation    | Group Hospitalization              | Group Medical Care | Dental Deduction | Days Work Week |
|--------------------|-----------------------------|-------------------------------|--------------------------|------------------------|------------------------------------|--------------------|------------------|----------------|
|                    |                             |                               |                          |                        |                                    |                    |                  |                |
| Pamlico            | 1 Co.<br>4 Cos.             | 30 + 4¢<br>30 + 4¢<br>30 + 4¢ | 962                      | .895<br>1,035<br>1,291 | No<br>Yes<br>Yes                   | No<br>No<br>Yes    | \$ 151.00        | 5 Each         |
| Paso-Perq-C-Chow.  | Yes                         | 7¢                            |                          |                        |                                    |                    |                  |                |
| Pasquotank         | Yes                         |                               |                          |                        |                                    |                    |                  |                |
| Penguins           | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Canal              | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Chowan             | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Pender             | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Pitt               | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Randolph           | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Richmond           | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Robeson            | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Rockingham         | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Rowan              | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Rutherford-Folk    | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Rutherford         | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Polk               | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Sampson            | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Scotland           | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Stanly             | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Stokes             | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Surry              | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Transylvania       | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Tyrrell-Washington | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Tyrrell            | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Washington         | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Union              | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Vance              | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Wake               | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Warren             | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Wayne              | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Wilkes             | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Wilson             | 1 Co.<br>(1 City)           | flat<br>flat<br>flat          | \$ 1,291*                | \$ 1,467**             | 50 Yes<br>22 No<br>16 Yes<br>56 No | \$ 3930            |                  |                |
| Charlotte          | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Rocky Mount        | ....                        |                               |                          |                        |                                    |                    |                  |                |
| Total              | 58 Cos.                     | 1 City                        |                          |                        |                                    |                    |                  |                |

\* Per capita buying income for State of N. C.  
\*\* Per capita local appropriation for health.

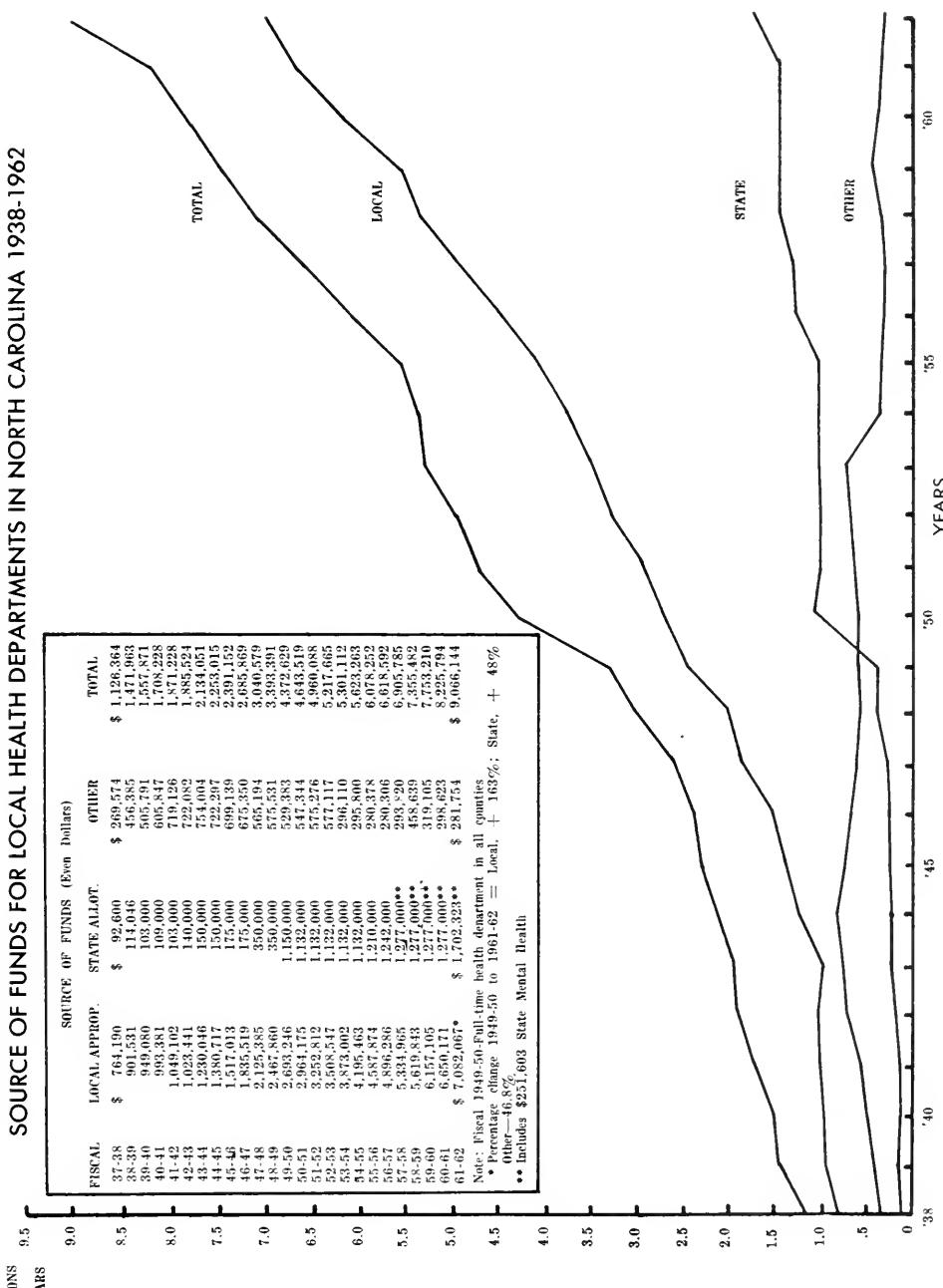
## NORTH CAROLINA LOCAL HEALTH SERVICE BUDGET

FISCAL YEAR 1961 - 1962

|  |       |                 |
|--|-------|-----------------|
| TOTAL STATE FUNDS INCLUDING MENTAL HEALTH (REGULAR \$1,450,720 + \$251,603 M.H.) | ..... | \$ 1,702,323.00 |
| TOTAL FEDERAL FUNDS (REGULAR FUNDS \$200,000, MENTAL HEALTH \$81,754)            | ..... | \$ 281,754.00   |
| TOTAL LOCAL FUNDS  | ..... | \$ 7,082,066.97 |
| TOTAL BUDGET LOCAL HEALTH  | ..... | \$ 9,066,143.97 |



## SOURCE OF FUNDS FOR LOCAL HEALTH DEPARTMENTS IN NORTH CAROLINA 1938-1962



**DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES—FISCAL YEAR 1961-62**

| County, City<br>or<br>District  | 1960<br>Population | Date<br>Organized | Total Budget  |             | Source of Funds and Amounts       |             |                        | Part<br>Time |  |             |          |          |                   | Full Time Personnel<br>(Merit System) |                                       |               |      |
|---------------------------------|--------------------|-------------------|---------------|-------------|-----------------------------------|-------------|------------------------|--------------|--|-------------|----------|----------|-------------------|---------------------------------------|---------------------------------------|---------------|------|
|                                 |                    |                   | Amount        | Per<br>Cap. | State<br>Aid<br>Inc. St.<br>M. H. | Per<br>Cap. | Local<br>Appropriation | Per<br>Cap.  | Federal<br>Inc.<br>Fed. M. H.<br>and Other | Per<br>Cap. | H.<br>D. | H.<br>D. | 0th<br>Dir.<br>D. | P.<br>H.<br>N.                        | Clerks<br>and<br>Sant. Others<br>Wks. | Deat.<br>Wks. |      |
| Alabama . . . . .               | 85,674             | 1938              | \$ 156,477.22 | \$ 1,827    | \$ 21,124                         | \$ .247     | \$ 132,353.22          | \$ 1,545     | \$ 3,000                                   | \$ .035     | 1        | 1        | 1                 | 11s.                                  | 6v.                                   | 6d.           | 30   |
| Alleg. Ashe-Watauga . . . . .   | 45,924             | 1938-35           | 51,514.24     | 1,144       | 21,996                            | 473         | 27,953.24              | .621         | 2,265                                      | .050        | 3        | 3        | 1                 | 1                                     | 1                                     | 1             | 20   |
| Allegheny . . . . .             | 7,734              | 1938              | 10,477.00     | 1,355       | 4,935                             | .637        | 5,200.00               | .672         | 2,352                                      | .046        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 1    |
| Ashe . . . . .                  | 19,768             | 1938              | 21,312.00     | 1,080       | 8,237                             | .417        | 12,068.00              | .611         | 1,037                                      | .052        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 1    |
| Watonga . . . . .               | 17,529             | 1935              | 21,288.00     | 1,214       | 7,212                             | .411        | 13,200.00              | .753         | 3,876                                      | .050        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 20   |
| Austin . . . . .                | 24,962             | 1937              | 58,338.98     | 2,340       | 11,014                            | .441        | 45,976.98              | 1,842        | 14,048                                     | .057        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 18   |
| Avery-Mitchell-Yancey . . . . . | 39,923             | 1935-44-35        | 45,022.00     | 1,128       | 20,194                            | 506         | 22,867.00              | .573         | 1,961                                      | .049        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 18   |
| Avery . . . . .                 | 12,009             | 1935              | 11,962.17     | .988        | 6,215                             | .518        | 5,068.17               | .422         | 579  | .048        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 1    |
| Mitchell . . . . .              | 13,906             | 1944              | 13,256.87     | .953        | 6,655                             | .479        | 5,912.87               | .425         | 639  | .049        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 1    |
| Yancey . . . . .                | 14,008             | 1935              | 13,380.88     | .955        | 6,775                             | .484        | 5,912.88               | .422         | 693  | .049        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 0    |
| Blairfort . . . . .             | 36,014             | 1923              | 56,307.40     | 1,569       | 13,760                            | .382        | 40,730.40              | 1,131        | 2,017                                      | .056        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 20   |
| Blair . . . . .                 | 24,350             | 1934              | 29,327.32     | 1,205       | 8,832                             | .363        | 19,064.32              | .753         | 1,431                                      | .059        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 20   |
| Bladen . . . . .                | 28,881             | 1921              | 46,060.55     | 1,595       | 12,067                            | .418        | 32,327.55              | 1,119        | 1,666                                      | .058        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 20   |
| Brunswick . . . . .             | 20,278             | 1949              | 35,638.00     | 1,760       | 8,591                             | .424        | 25,916.00              | 1,278        | 1,911                                      | .058        | D.       | 2        | 1                 | 1                                     | 1                                     | 1             | 10   |
| Buncombe (M.H.) . . . . .       | 130,074            | 1913              | 469,077.00    | 3,906       | 60,865*                           | .468        | 395,021.00             | 3,037        | 13,191                                     | .101        | 1        | 1        | 1                 | 8                                     | 18                                    | 13v.i.14      | 52d. |
| Burke . . . . .                 | 52,701             | 1937              | 70,062.20     | 1,329       | 15,564                            | .295        | 52,928.20              | .995         | 2,070                                      | .659        | 1        | 1        | 1                 | 3                                     | 2                                     | b.t.          | 20   |
| Cahaba (M.H.) . . . . .         | 68,137             | 1919              | 163,578.77    | 2,401       | 24,019*                           | .352        | 135,853.77             | 1,394        | 3,726                                      | .035        | 1        | 1        | 1                 | 1                                     | 5                                     | 5             | 30   |
| Calhoun . . . . .               | 49,552             | 1937              | 53,350.00     | 1,077       | 16,749                            | .318        | 35,503.00              | .717         | 2,998                                      | .042        | 1        | 1        | 1                 | 3                                     | 2                                     | 2             | 20   |
| Cartier . . . . .               | 30,940             | 1941              | 42,329.36     | 1,368       | 10,035                            | .324        | 31,071.36              | 1,004        | 1,223                                      | .040        | 1        | 1        | 1                 | 3                                     | 1                                     | 1             | 10   |
| Catawba-Lin-Alex. . . . .       | 117,630            | 1938-40-47        | 195,620.02    | 1,663       | 37,973                            | .323        | 152,964.02             | 1,300        | 4,683                                      | .040        | 1        | 1        | 1                 | 14s.                                  | 7                                     | ed.           | 0    |
| Catawba . . . . .               | 73,191             | 1938              | 110,652.00    | 1,512       | 18,973                            | .259        | 88,952.00              | 1,216        | 2,727                                      | .037        | 8        | 3        | 6                 | b.                                    | 0                                     | 0             | 0    |
| Lincoln . . . . .               | 28,814             | 1940              | 46,187.00     | 1,603       | 9,772                             | .339        | 35,198.00              | 1,222        | 2,127                                      | .042        | 3        | 2        | 1                 | 0                                     | 0                                     | 0             | 0    |
| Alexander . . . . .             | 15,625             | 1947              | 26,560.00     | 1,700       | 6,625                             | .438        | 18,986.00              | 1,215        | 2,739                                      | .047        | 3        | 2        | 1                 | 0                                     | 0                                     | 0             | 0    |
| Cherokee-Clay-Graham . . . . .  | 28,293             | 1937              | 46,628.20     | 1,648       | 16,277                            | .475        | 29,012.20              | 1,027        | 1,309                                      | .046        | 1        | 1        | 1                 | 2                                     | 2                                     | 2             | 22   |
| Cherokee . . . . .              | 16,325             | 1937              | 23,151.00     | 1,417       | 7,226                             | .442        | 15,162.00              | .928         | 1,763                                      | .047        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 1    |
| Clay . . . . .                  | 5,526              | 1937              | 9,196.00      | 1,664       | 4,422                             | .800        | 4,516.00               | .815         | 268  | .049        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 1    |
| Graham . . . . .                | 6,432              | 1937              | 11,633.00     | 1,809       | 4,629                             | .720        | 6,726.00               | 1,046        | 278  | .043        | 1        | 1        | 1                 | 1                                     | 1                                     | 1             | 1    |
| Cleveland (M.H.) . . . . .      | 66,048             | 1938              | 131,344.00    | 1,994       | 17,579                            | .542        | 87,736.00              | 1,328        | 8,349                                      | .126        | 1        | 1        | 1                 | 5                                     | 5                                     | 30            |      |
| Columbus . . . . .              | 48,973             | 1921              | 66,520.00     | 1,354       | 17,109                            | .349        | 46,145.00              | .948         | 2,766                                      | .057        | 1        | 1        | 1                 | 4                                     | 3                                     | 3             | 20   |
| Craven . . . . .                | 58,773             | 1921              | 82,754.02     | 1,408       | 16,879                            | .287        | 63,222.02              | 1,076        | 2,663                                      | .045        | D.       | 3        | 48.               | 3                                     | 5b.                                   | 20            |      |
| Cumberland (M.H.) . . . . .     | 148,418            | 1919              | 203,235.58    | 1,369       | 48,171*                           | .324        | 144,376.58             | .973         | 10,688                                     | .072        | 1        | 3        | 12s.              | 7i.                                   | 6t.                                   | 30            |      |

|                           |         |            |               |          |           |         |               |         |          |         |    |     |      |       |       |      |      |
|---------------------------|---------|------------|---------------|----------|-----------|---------|---------------|---------|----------|---------|----|-----|------|-------|-------|------|------|
| Currituck-Dare            | 12,536  | 1938-37    | 31,618,000    | 2,522    | 9,101     | .726    | 21,928,000    | 1,749   | 589      | .047    | 1  | 2   | 2    | 1     | 1     | 12   |      |
| Currituck                 | 6,601   | 1938       | 15,283,000    | 2,315    | 4,694     | .711    | 10,250,000    | 1,533   | 339      | .051    |    |     |      |       |       |      |      |
| Dare                      | 5,935   | 1937       | 14,907,000    | 2,152    | 4,407     | .743    | 8,257         | 1,277   | 250      | .042    |    |     |      |       |       |      |      |
| Davidson                  | 79,433  | 1917       | \$ 96,386,000 | \$ 1,219 | \$ 20,451 | \$ .257 | \$ 73,348,000 | \$ .923 | \$ 3,087 | \$ .039 | 1  | 7   | 7    | 3     | 4b.   | 30   |      |
| David-Yadkin              | 39,532  | 1938-31    | 57,051,21     | 1,443    | 16,474    | .417    | 38,750,000    | .985    | 1,613    | .041    | D. | 4   | 2    | 1     | 1     | 20   |      |
| Davie                     | 16,728  | 1938       | 24,103,000    | 1,441    | 6,693     | .400    | 16,750,000    | 1,001   | 660      | .040    |    | 2   | 1    | 1     | 1     | 20   |      |
| Yadkin                    | 22,804  | 1931       | 25,831,000    | 1,133    | 8,318     | .365    | 16,560,000    | .726    | 953      | .042    |    | 2   | 1    | 1     | 1     | 20   |      |
| Duplin                    | 40,227  | 1934       | 59,086,40     | 1,467    | 15,277    | .379    | 41,507,40     | 1,031   | 2,057    | .037    | 1  | 5   | 2    | 2     | 2     | 20   |      |
| Durham (M.H.)             | 111,935 | 1913       | 360,034,000   | 3,215    | 53,991*   | .482    | 294,140,000   | 2,627   | 11,903   | .106    | 1  | 9   | 20s. | 11i.  | 12b.  | 52d. |      |
| Eugenecombe (Ex. R.M.)    | 39,401  | 1919       | 67,155,11     | 1,705    | 14,169    | .360    | 50,864,11     | 1,291   | 2,122    | .054    | D. | 5   | 2    | 4     |       | 20   |      |
| Forsyth (M.H.)            | 189,428 | 1913       | 397,392,08    | 2,098    | 57,804    | .305    | 327,640,08    | 1,730   | 11,948   | .063    | 1  | 8   | 25   | 12ds. | 15h.  | 52   |      |
| Franklin                  | 28,755  | 1930       | 44,108,85     | 1,534    | 11,015    | .383    | 31,427,85     | 1,093   | 1,666    | .058    | 1  | 3   | 1    | 2     | 2     | 20   |      |
| Gaston (M.H.)             | 127,074 | 1928       | 281,075,00    | 2,212    | 35,090    | .276    | 240,104,00    | 1,890   | 5,881    | .046    | 1  | 1   | 16   | 11ds. | 12ed. | 30   |      |
| Granville                 | 33,110  | 1919       | 52,463,41     | 1,585    | 11,525    | .348    | 39,268,41     | 1,186   | 1,670    | .051    | 1  | 4   | 8    |       |       |      |      |
| Greene                    | 16,741  | 1937       | 36,472,11     | 2,179    | 8,261     | .494    | 27,216,11     | 1,626   | 995      | .039    | D. | 3   | 1    | 2     |       | 10   |      |
| Guildford (M.H.)          | 246,520 | 1911       | 722,644,00    | 2,972    | 89,485*   | .363    | 623,902,00    | 2,531   | 19,257   | .078    | 1  | 1   | 9    | 38    | 21v.  | 26d. | 52d. |
| Halifax (M.H.)            | 58,956  | 1919       | 129,402,88    | 2,195    | 22,790*   | .387    | 102,312,88    | 1,735   | 4,300    | .073    |    | 1   | 10   | 3     | 6b.   | 20   |      |
| Harnett (M.H.)            | 48,236  | 1938       | 58,828,00     | 1,220    | 16,187    | .336    | 40,288,00     | .835    | 2,353    | .049    |    | 1   | 5s.  | 1     | 2     | 20   |      |
| Haywood (M.H.)            | 39,711  | 1934       | 74,118,38     | 1,876    | 16,717    | .422    | 54,513,38     | .373    | 2,846    | .072    |    | 1   | 4    | 2     | 3b.   | 20   |      |
| Henderson                 | 36,163  | 1917       | 54,218,40     | 1,499    | 11,221    | .310    | 41,551,40     | 1,149   | 1,446    | .040    | 1  | 2   | 2    | 2     | 0     | 20   |      |
| Hertford-Gates            | 31,972  | 1936-40    | 73,270,72     | 1,666    | 14,972    | .468    | 36,444,72     | 1,140   | 1,854    | .058    | 1  | 1   | 4    | 1     | 2     | 20   |      |
| Hertford                  | 22,778  | 1936       | 33,323,68     | 1,467    | 9,295     | .409    | 22,733,68     | 1,001   | 1,295    | .057    |    | 1   | 1    | 2     | 2     | 20   |      |
| Gates                     | 9,254   | 1940       | 17,602,81     | 1,902    | 5,677     | .614    | 11,366,81     | 1,228   | 556      | .060    |    | 2   | 2    | 1     | 1     | 10   |      |
| Hoke                      | 16,356  | 1913       | 32,216,00     | 1,970    | 8,070     | .494    | 23,063,20     | 1,410   | 1,083    | .066    | 1  | 2   | 2    | 1     | 1     | 10   |      |
| Hyde                      | 5,765   | 1937       | 15,148,00     | 2,628    | 6,915     | 1,200   | 7,910,00      | 1,372   | 323      | .056    |    | 1   | 1    | 1     | 1     | 10   |      |
| Iredell                   | 62,526  | 1912       | 79,005,65     | 1,264    | 18,111    | .290    | 58,280,00     | .932    | 2,614    | .042    | D. | 1   | 5    | 2     | 3t.   | 30   |      |
| Jackson-Macon-Swain       | 41,102  | 1934-36-34 | 66,897,65     | 1,628    | 20,158    | .490    | 44,821,65     | 1,091   | 1,918    | .047    | 1  | 3   | 3    | 3     | 3     | 30   |      |
| Jackson                   | 17,780  | 1934       | 20,865,09     | 1,174    | 7,187     | .404    | 12,861,09     | .724    | 817      | .046    |    | 1   | 1    | 1     | 1     | 10   |      |
| Macon                     | 14,935  | 1936       | 19,287,83     | 1,291    | 6,663     | .446    | 11,966,83     | .801    | 658      | .044    |    | 1   | 1    | 1     | 1     | 10   |      |
| Swain                     | 8,387   | 1934       | 15,545,94     | 1,854    | 5,216     | .622    | 9,886,94      | 1,179   | 443      | .053    |    | 1   | 1    | 1     | 1     | 10   |      |
| Johnston                  | 62,936  | 1937       | 68,263,21     | 1,085    | 20,129    | .320    | 52,000,00     | 1,715   | 3,118    | .050    | 1  | 5s. | 2    | 2     | 2     | 30   |      |
| Jones                     | 11,005  | 1919       | 24,493,40     | 2,226    | 6,089     | .553    | 17,735,40     | 1,612   | 669      | .061    | D. | 2   | 2    | 1     | 1     | 10   |      |
| Leノir (M.H.)              | 55,276  | 1917       | 82,694,49     | 1,677    | 20,763    | .376    | 67,938,09     | 1,229   | 3,993    | .072    |    | 2   | 6    | 3     | 4     | 20   |      |
| McDowell                  | 26,742  | 1945       | 37,048,00     | 1,386    | 10,921    | .375    | 25,969,00     | .971    | 1,058    | .040    | 1  | 2   | 2    | 1     | 1     | 20   |      |
| Madison                   | 17,217  | 1949       | 26,450,00     | 1,536    | 7,777     | .452    | 17,835,00     | 1,036   | 838      | .048    | 1  | 2   | 2    | 1     | 1     | 14.5 |      |
| Martin                    | 27,139  | 1917       | 53,563,00     | 1,974    | 11,762    | .433    | 40,202,00     | 1,482   | 1,599    | .059    |    | 3   | 3    | 2     | 1     | 20   |      |
| Mecklenburg Ex. C. (M.H.) | 70,547  | 1918       | 274,518,00    | 3,891    | 22,334    | .316    | 247,588,00    | 3,511   | 4,496    | .064    | 1  | 1   | 1    | 1     | 1     | 6    |      |

**DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES—FISCAL YEAR 1961-62**

| County, City<br>or<br>District | 1960       |                   |              | Total Budget |             |                        | State Budget |                        |             | Source of Funds and Amounts                |             |          | Full Time Personnel<br>(Merit System) |          |                                |
|--------------------------------|------------|-------------------|--------------|--------------|-------------|------------------------|--------------|------------------------|-------------|--|-------------|----------|---------------------------------------|----------|--------------------------------|
|                                | Population | Date<br>Organized | Amount       | Per<br>Cap.  | Per<br>Cap. | Local<br>Appropriation | Per<br>Cap.  | Local<br>Appropriation | Per<br>Cap. | Federal<br>Inc.<br>Fed. M. H.<br>and Other | Per<br>Cap. | H.<br>D. | H.<br>D.                              | H.<br>D. | Clerks<br>and<br>Dent.<br>Wks. |
|                                |            |                   |              |              |             |                        |              |                        |             |  |             |          |                                       |          |                                |
| Montgomery . . . . .           | 18,408     | 1942              | \$ 26,673.38 | \$ 1,449     | \$ 7,695    | \$ 418                 | \$ 18,059.38 | \$ .981                | \$ 919      | D.   | \$ .050     | 2        | 1                                     | 1        | 10                             |
| Moore (Ex. R.M.) . . . . .     | 36,733     | 1928              | 50,405.00    | 1,372        | 12,806      | 349                    | 35,996.00    | .980                   | 1,603       | D.   | .043        | 3        | 2                                     | 2        | 20                             |
| Nash . . . . .                 | 43,680     | 1915              | 60,800.32    | 1,392        | 15,579      | 357                    | 43,086.32    | .986                   | 2,135       | D.   | .049        | 5        | 2                                     | 2        | 20                             |
| New Hanover (M.H.) . . . . .   | 71,742     | 1913              | 199,720.71   | 2,784        | 23,728      | 331                    | 171,633.71   | 2,392                  | 4,359       | D.   | .061        | 1        | 1                                     | 1        | 20                             |
| Newton . . . . .               | 26,811     | 1917              | 47,180.00    | 1,756        | 4,377       | 1,210                  | 43,188.00    | 1,261                  | 1,560       | D.   | .058        | 1        | 1                                     | 1        | 20                             |
| Onslow . . . . .               | 82,106     | 1917              | 67,132.32    | .812         | 17,354      | .210                   | 46,316.32    | .560                   | 3,462       | D.   | .042        | 1        | 4                                     | 3        | 10                             |
| Orange-P-C-L-Caswell . . . . . | 142,622    | 1935-37-44        | 250,111.75   | 1,754        | 59,913*     | .420                   | 183,644.75   | 1,288                  | 6,554       | D.   | .046        | 1        | 1                                     | 1        | 52                             |
| Orange . . . . .               | 42,970     | 1935              | 51,866.00    | 1,207        | 10,869      | 253                    | 39,500.00    | .919                   | 1,497       | D.   | .035        | 9        | 2                                     | 4        | 4                              |
| Person . . . . .               | 26,394     | 1935              | 39,156.00    | 1,484        | 9,762       | .370                   | 28,000.00    | 1,061                  | 1,394       | D.   | .053        | 2        | 1                                     | 1        | 1                              |
| Chatham . . . . .              | 27,785     | 1937              | 33,085.00    | 1,235        | 9,822       | .367                   | 22,000.00    | .821                   | 1,263       | D.   | .047        | 2        | 1                                     | 1        | 1                              |
| Lee . . . . .                  | 26,561     | 1946              | 34,184.00    | 1,287        | 9,500       | .358                   | 23,400.00    | .981                   | 1,284       | D.   | .048        | 2        | 2                                     | 2        | 1                              |
| Caswell . . . . .              | 19,912     | 1944              | 24,534.00    | 1,232        | 8,418       | .423                   | 15,000.00    | .753                   | 1,116       | D.   | .056        | 1        | 1                                     | 1        | 10                             |
| Pamlico . . . . .              | 9,850      | 1949              | 22,900.00    | 2,325        | 8,218       | .835                   | 14,167.00    | 1,438                  | 515         | D.   | .052        | 1        | 1                                     | 1        | 20                             |
| Pasquotank . . . . .           | 52,135     | 1942-43-37        | 83,563.42    | 1,603        | 26,576      | .510                   | 54,359.42    | 1,043                  | 2,628       | D.   | .048        | 7        | 3                                     | 7b.      | 4                              |
| Perquimans . . . . .           | 25,630     | 1942              | 33,621.00    | 1,312        | 9,195       | .359                   | 23,200.00    | .905                   | 1,226       | D.   | .048        | 4        | 1                                     | 1        | 20                             |
| Camden . . . . .               | 9,178      | 1943              | 14,979.70    | 1,632        | 5,432       | .592                   | 9,045.70     | .985                   | 1,502       | D.   | .055        | 1        | 1                                     | 1        | 10                             |
| Chowan . . . . .               | 5,598      | 1943              | 9,763.55     | 1,744        | 4,479       | .800                   | 5,000.55     | .893                   | 284         | D.   | .051        | 1        | 1                                     | 1        | 10                             |
| Robeson . . . . .              | 11,729     | 1937              | 18,709.66    | 1,595        | 6,081       | .518                   | 12,012.66    | 1,024                  | 616         | D.   | .053        | 1        | 1                                     | 1        | 10                             |
| Pender . . . . .               | 18,508     | 1941              | 28,883.00    | 1,561        | 8,782       | .475                   | 19,051.00    | 1,029                  | 1,050       | D.   | .050        | 2        | 1                                     | 1        | 10                             |
| Pitt (M.H.) . . . . .          | 69,942     | 1917              | 161,561.61   | 2,310        | 34,461      | .493                   | 119,485.61   | 1,708                  | 7,615       | D.   | .109        | 1        | 1                                     | 5        | 20                             |
| Randolph . . . . .             | 61,497     | 1927              | 78,267.35    | 1,273        | 16,043      | .261                   | 59,929.35    | .975                   | 2,295       | D.   | .037        | 1        | 1                                     | 5b.      | 10                             |
| Richmond . . . . .             | 39,262     | 1924              | 54,366.00    | 1,387        | 13,117      | .335                   | 39,393.00    | 1,005                  | 1,856       | D.   | .047        | 3        | 2                                     | 2        | 20                             |
| Rockingham . . . . .           | 89,102     | 1912              | 108,716.00   | 1,220        | 29,088      | .326                   | 74,194.00    | .833                   | 1,803       | D.   | .047        | 7s.      | 3                                     | 4ed.     | 30                             |
| Rowan (M.H.) . . . . .         | 69,629     | 1940              | 92,084.55    | 1,323        | 18,901      | .271                   | 70,423.55    | 1,012                  | 2,760       | D.   | .061        | 1        | 1                                     | 1        | 30                             |
| Rutherford-Polk . . . . .      | 82,817     | 1918              | 150,358.18   | 1,816        | 33,248*     | .402                   | 110,626.18   | 1,336                  | 6,484       | D.   | .078        | 3        | 4                                     | 2        | 30                             |
| Rutherford . . . . .           | 67,446     | 1924-38           | 67,947.32    | 1,203        | 20,726      | .367                   | 44,781.32    | .793                   | 2,440       | D.   | .043        | 3        | 3                                     | 3        | 30                             |
| Rutherford-Polk . . . . .      | 45,091     | 1924              | 47,300.00    | 1,022        | 13,697      | .304                   | 32,556.00    | .715                   | 1,947       | D.   | .043        | 3        | 2                                     | 2        | 20                             |
| Stokes . . . . .               | 11,395     | 1938              | 14,644.00    | 1,285        | 5,751       | .505                   | 8,400.00     | .737                   | 493         | D.   | .043        | 1        | 1                                     | 1        | 20                             |
| Sampson . . . . .              | 48,013     | 1918              | 66,901.64    | 1,394        | 17,577      | .366                   | 46,599.64    | .971                   | 2,725       | D.   | .057        | 1        | 5                                     | 2        | 20                             |
| Scotland . . . . .             | 25,183     | 1943              | 55,732.88    | 2,213        | 12,307      | .489                   | 41,918.88    | 1,664                  | 1,507       | D.   | .060        | 1        | 4                                     | 2        | 20                             |
| Stanly . . . . .               | 40,873     | 1937              | 54,594.46    | 1,236        | 2,297       | .402                   | 40,895.46    | 1,001                  | 1,552       | D.   | .038        | 1        | 3                                     | 2        | 20                             |
| Stokes . . . . .               | 22,314     | 1931              | 43,486.00    | 1,949        | 8,221       | .368                   | 34,553.00    | .540                   | 912         | D.   | .041        | 1        | 1                                     | 1        | 10                             |
| Surry . . . . .                | 24,205     | 1919              | 82,455.69    | 1,711        | 15,089      | .313                   | 65,423.69    | 1,357                  | 1,943       | D.   | .041        | 1        | 5                                     | 2        | 20                             |
| Transylvania . . . . .         | 16,372     | 1937              | 24,215.00    | 1,479        | 7,086       | .433                   | 16,505.00    | 1,008                  | 624         | D.   | .038        | 1        | 2                                     | 1        | 10                             |

|                                 |           |      |                 |          |               |         |                    |          |               |         |    |    |    |      |       |  |
|---------------------------------|-----------|------|-----------------|----------|---------------|---------|--------------------|----------|---------------|---------|----|----|----|------|-------|--|
| Tyrell-Washington               | 18,008    | 1937 | \$ 36,324.22    | \$ 2,018 | \$ 11,805     | \$ .656 | \$ 23,535.22       | \$ 1,307 | \$ .994       | \$ .055 | 1  | 2  | 1  | 2    | 16    |  |
| Tyrell                          | 4,520     | 1937 | \$ 9,756.00     | 2,108    | 4,276         | .946    | 5,000.00           | 1,106    | 250           | .056    |    |    |    |      |       |  |
| Washington                      | 13,488    | 1937 | 20,442.00       | 1,515    | 6,773         | .502    | 12,925.00          | .958     | 744           | .055    |    |    |    |      |       |  |
| Union                           | 44,670    | 1938 | 69,450.40       | 1,555    | 14,017        | .314    | 53,202.40          | 1,191    | 2,231         | .050    | 1  | 1  | 1  | 1    | 20    |  |
| Vance                           | 32,002    | 1920 | 45,890.07       | 1,434    | 11,244        | .352    | 33,066.07          | 1,033    | 1,570         | .049    | 1  | 2  | 1  | 2    | 20    |  |
| Wake (M.H.)                     | 169,082   | 1918 | 323,960.92      | 1,916    | 58,541*       | .346    | 253,398.92         | 1,499    | 12,021        | .071    | 1  | 1  | 6  | 20s. | 7     |  |
| Warren                          | 19,652    | 1945 | 33,368.24       | 1,698    | 8,994         | .458    | 23,181.24          | 1,179    | 1,193         | .061    | 1  | 1  | 2  | 1    | 10    |  |
| Wayne                           | 82,059    | 1920 | 127,624.78      | 1,555    | 22,528        | .275    | 10,950.78          | 1,230    | 4,146         | .050    | 1  | 4  | 7  | 0    |       |  |
| Wilkes                          | 45,269    | 1920 | 35,123.77       | .776     | 15,235        | .337    | 17,694.77          | .391     | 2,194         | .048    | 1  | 2  | 1  | 1    | 20    |  |
| Wilson (M.H.)                   | 57,716    | 1916 | 151,900.00      | 2,632    | 34,616        | .600    | 109,112.00         | 1,890    | 8,112         | .142    | 1  | 5  | 6  | 3    | 10    |  |
| Total Counties                  | 4,322,444 |      | 8,061,534.97    | 1,865    | 1,599,333     | .370    | 6,201,502.97       | 1,435    | 260,699       | .060    | 12 | 53 | 4  | 63   | 235   |  |
| Charlotte (M.H.)                | 201,564   | 1918 | 899,823.00      | 4,464    | 81,824*       | .406    | 798,566.00         | 3,962    | 19,433        | .096    | 1  | 15 | 50 | 26   | 37    |  |
| Rocky Mount                     | 32,147    |      | 91,648.00       | 2,851    | 8,028         | .250    | 81,998.00          | 2,551    | 1,622         | .050    | D. | 5  | 3  | v.l. | ed.b. |  |
| Total Cities                    | 233,711   |      | 991,471.00      | 4,242    | 89,852        | .384    | 880,564.00         | 3,768    | 21,055        | .090    | 0  | 1  | 0  | 15   | 42    |  |
| Combined Total                  | 4,556,155 |      | 9,053,005.97    | 1,988    | 1,689,185     | .371    | 7,082,066.97       | 1,555    | 281,754       | .062    | 12 | 54 | 4  | 78   | 541   |  |
| Grand Total                     | 4,556,155 |      | \$ 9,066,143.97 | \$ 1,990 | \$ 1,702,323* | \$ .373 | \$ 7,082,066.97*** | \$ 1,555 | \$ 281,754*** | \$ .062 | 12 | 54 | 4  | 78   | 541   |  |
| Recaptured and unbudgeted funds |           |      | 13,138.00       |          | 13,138        |         |                    |          |               |         |    |    |    |      |       |  |

\* Includes funds for Training Centers (10) Centers—One Cu. Lab. Total \$24,700  
 \*\* State Mental Health Funds (\$251,563) included (See Departments—M.H.)  
 \*\*\* Local Appropriation includes balance (brought forward) of \$463,092.77 from fiscal year 1960-61  
 \*\*\*\* Federal Mental Health Funds (\$81,754) included (See Departments—M.H.)  
 Regular Federal funds allocated to Health Departments (200,000)  
 The Local breakdown of individual counties in Districts does not include any special funds, extra funds or balances.  
 Special Project Funds are not included—See back sheets attached  
 Special State Aid to two departments (Pamlico and Hyde) in the amount of \$4,398

D—Service District—with Health Director  
 dn—Public Health Nursing Director  
 ds—Director of Sanitation Activities  
 s—Public Health Nursing Supervisor  
 V—Veterinarian  
 i—Public Health Investigator

b—Bacteriologist  
 d—Dentist  
 ed—Health Educator  
 n—Nutritionist  
 t—Technician  
 a.a.—Admn. Assistant

M. H.—Mental Health Personnel  
 Ex—Exclusive of  
 C—Charlottesville  
 R. M.—Rocky Mount

**PERTINENT INFORMATION ON LOCAL HEALTH DEPARTMENTS—Fiscal Year 1961-62**

| Departments           | Under Local Gov. Retirement | Contract Travel Plan | Per Capita Buying Income | Per Capita Local Appropriation | Special Project Funds | Single Unit After July 1 | Dental Deduction | Days Work Week       |
|-----------------------|-----------------------------|----------------------|--------------------------|--------------------------------|-----------------------|--------------------------|------------------|----------------------|
| Alamance              |                             |                      | \$ 10 $\frac{1}{2}$      | \$ 1688                        | \$ 1.545              | \$ 4,676 C.D.            | \$ 73.00         | 5 $\frac{1}{2}$ Each |
| Alleghany-Watauga     | Yes                         | 3 Cos.               | \$ 7 $\frac{1}{2}$       | 1092                           | .621                  |                          |                  | 5 Each               |
| Alleghany             |                             |                      | 7 $\frac{1}{2}$          | 730                            | .672                  |                          |                  | 5 Each               |
| Ashe                  |                             |                      | 7 $\frac{1}{2}$          | 930                            | .611                  |                          |                  | 5 Each               |
| Watauga               |                             |                      | 7 $\frac{1}{2}$          | 991                            | .753                  |                          |                  | 5 Each               |
| Anson                 | Yes                         | 1 Cos.               | 40 +                     | 1033                           | 1.842                 |                          |                  | 5 $\frac{1}{2}$ Each |
| Avery-Mitchell-Yancey | Yes                         | 3 Cos.               | 7 $\frac{1}{2}$          | 983                            | .573                  |                          |                  | 5 Each               |
| Avery                 |                             |                      | 7 $\frac{1}{2}$          | 1016                           | .422                  |                          |                  | 5 Each               |
| Mitchell              |                             |                      | 7 $\frac{1}{2}$          | 1016                           | .425                  |                          |                  | 5 Each               |
| Yancey                |                             |                      | 7 $\frac{1}{2}$          | 915                            | .422                  |                          |                  | 5 Each               |
| Beaufort              | Yes                         | 1 Co.                |                          | 1086                           | 1.131                 |                          |                  | 5 Each               |
| Bertie                |                             |                      |                          | 1003                           | .783                  |                          |                  | 5 $\frac{1}{2}$ Each |
| Bladen                | Yes                         | 1 Co.                |                          | 7 $\frac{1}{2}$                | 965                   |                          |                  | 5 $\frac{1}{2}$ Each |
| Brunswick             | Yes                         | 1 Co.                |                          | 7 $\frac{1}{2}$                | 973                   |                          |                  | 5 $\frac{1}{2}$ Each |
| Buncombe              | Yes                         | 1 Co.                | flat                     | 1651                           | 3.037                 |                          |                  | 5 Each               |
| Burke                 | Yes                         | 1 Co.                | 30 + 4 $\frac{1}{2}$     | 1230                           | .995                  |                          |                  | 5 $\frac{1}{2}$ Each |
| Cariburus             | Yes                         | 1 Co.                | 20 + 7 $\frac{1}{2}$     | 1631                           | 1.994                 |                          |                  | 5 Each               |
| Caldwell              | Yes                         | 1 Co.                | 30 + 4 $\frac{1}{2}$     | 1237                           | .717                  |                          |                  | 5 $\frac{1}{2}$ Each |
| Cartert               |                             |                      | 30 + 4 $\frac{1}{2}$     | 1380                           | 1.004                 |                          |                  | 5 $\frac{1}{2}$ Each |
| Catawba-Lin-Alex.     | Yes                         | 3 Cos.               | 35 + 4 $\frac{1}{2}$     | 1509                           | 1.300                 |                          |                  | 5 Each               |
| Catawba               |                             |                      | 35 + 4 $\frac{1}{2}$     | 1190                           | 1.216                 |                          |                  | 5 Each               |
| Lincolna              |                             |                      | 35 + 4 $\frac{1}{2}$     | 1087                           | 1.222                 |                          |                  | 5 Each               |
| Alexander             |                             |                      | 35 + 4 $\frac{1}{2}$     | 1087                           | 1.215                 |                          |                  | 5 Each               |
| Cherokee-Clay-Graham  |                             |                      | 30 + 4 $\frac{1}{2}$     | 1008                           | 1.027                 |                          |                  | 5 Each               |
| Cherokee              |                             |                      | 30 + 4 $\frac{1}{2}$     | 959                            | .928                  |                          |                  | 5 Each               |
| Clay                  |                             |                      | 30 + 4 $\frac{1}{2}$     | 1038                           | .815                  |                          |                  | 5 Each               |
| Graham                |                             |                      | 30 + 4 $\frac{1}{2}$     | 1326                           | 1.046                 |                          |                  | 5 Each               |
| Cleveland             |                             |                      | 7 $\frac{1}{2}$          | 1084                           | 1.328                 |                          |                  | 5 $\frac{1}{2}$ Each |
| Columbus              |                             |                      | 15 + 7 $\frac{1}{2}$     | 1532                           | .948                  |                          |                  | 5 $\frac{1}{2}$ Each |
| Craven                | Yes                         | 1 Co.                | 30 + 4 $\frac{1}{2}$     | 1404                           | 1.076                 |                          |                  | 5 $\frac{1}{2}$ Each |
| Cumberland            | Yes                         | 1 Co.                | 30 + 4 $\frac{1}{2}$     | 1292                           | .973                  |                          |                  | 5 $\frac{1}{2}$ Each |
| Curtinck-Dare         |                             |                      | 30 + 4 $\frac{1}{2}$     | 1305                           | 1.749                 |                          |                  | 5 Each               |
| Curtinck              |                             |                      | 30 + 4 $\frac{1}{2}$     | 1451                           | 1.553                 |                          |                  | 5 Each               |
| Dare                  |                             |                      | 7 $\frac{1}{2}$          | 1389                           | 1.727                 |                          |                  | 5 $\frac{1}{2}$ Each |
| Davidson              |                             |                      | 7 $\frac{1}{2}$          | 1147                           | .923                  |                          |                  | 5 Each               |
| Davie-Yadkin          | Yes                         | 2 Cos.               | 7 $\frac{1}{2}$          | 1147                           | .985                  |                          |                  | 5 Each               |
| Davie                 |                             |                      | 7 $\frac{1}{2}$          | 1389                           | 1.001                 |                          |                  | 5 Each               |
| Yadkin                |                             |                      | 7 $\frac{1}{2}$          |                                | .726                  |                          |                  | 5 Each               |
|                       |                             |                      |                          |                                |                       | Graham (Aug. 16)         |                  |                      |
|                       |                             |                      |                          |                                |                       | Currirtuck (Oct. 1)      |                  |                      |
|                       |                             |                      |                          |                                |                       | Dare (Oct. 1)            |                  |                      |

| Departments         | Under Local Gov. Retirement | Contract Travel Plan | Per Capita Buying Income | Per Capita Local Apropr. | Special Project Funds                            | Single Unit After July 1 | Dental Deduction | Days Work Week |
|---------------------|-----------------------------|----------------------|--------------------------|--------------------------|--|--------------------------|------------------|----------------|
| Duplin              | Yes                         | 1 Co.                | \$ 30 + 7¢               | \$ 968                   | \$ 1,031   |                          |                  | 5 1/2          |
| Durham              | Yes                         | 1 Co.                | 30 + 6¢                  | 1820                     | 2,627  |                          |                  | 5              |
| Edgecombe           | Yes                         | 1 Co.                | 10 + 7¢                  | 1275                     | 1,291  |                          |                  | 5              |
| Forsyth             |                             |                      | 70 flat                  | 1833                     | 1,719  |                          |                  | 5              |
| Franklin            |                             |                      | 70 flat                  | 1067                     | 1,067  |                          |                  | 5              |
| Gaston              | Yes                         | 1 Co.                | 30 + 4¢                  | 1095                     | 1,090  |                          |                  | 5              |
| Granville           |                             |                      | 70 and 60 flat           | 1095                     | 1,186  |                          |                  | 5              |
| Greene              | Yes                         | 1 Co.                | 80 up to 1000 miles      | 1908                     | 1,626  |                          |                  | 5              |
| Guilford            | Yes                         | 1 Co.                | 30 + 4¢                  | 2,531                    | \$ 6,300 C.D.H.<br>6,320 M.C.H.<br>4,424,40 H.D. |                          |                  | 5              |
| Halifax             |                             |                      | 35 + 7¢                  | 1185                     | 1,735  |                          |                  | 5              |
| Harnett             | Yes                         | 1 Co.                | 1249                     | .825                     |  |                          |                  | 5              |
| Haywood             |                             |                      | 1436                     | 1,373                    |  |                          |                  | 5              |
| Henderson           | Yes                         | 1 Co.                | 35 + 7¢                  | 1367                     | 1,149  |                          |                  | 5              |
| Hertford-Dates      | Yes                         | 1 Co.                | 30 + 4¢                  |                          | 1,140  |                          |                  | 5              |
| Hertford            |                             |                      | 30 + 4¢                  | 1034                     | 1,001  |                          |                  | 5              |
| Gates               |                             |                      | 30 + 4¢                  | 913                      | 1,228  |                          |                  | 5              |
| Hoke                | Yes                         | 1 Co.                | 8¢                       | 870                      | 1,410  |                          |                  | 5              |
| Hyde                | Yes                         | 1 Co.                | 30 + 4¢                  | 964                      | 1,372  |                          |                  | 5              |
| Iredell             | Yes                         | 1 Co. (Oct. 1)       | 30 + 7¢                  | 1375                     | .932   |                          |                  | 5 1/2          |
| Jackson-Macon-Swain | Yes                         | 3 Cos.               | 30 + 4¢                  |                          | 1,091  | 1,000 H.D.               |                  | 5              |
| Jackson             |                             |                      | 30 + 4¢                  | 1016                     | .724   |                          |                  | 5              |
| Macon               |                             |                      | 30 + 4¢                  | 1016                     | .801   |                          |                  | 5              |
| Swain               |                             |                      | 30 + 4¢                  | 999                      | 1,179  |                          |                  | 5              |
| Johnson             |                             |                      | 6.5¢                     | 1125                     | .715   |                          |                  | 5 1/2          |
| Jones               |                             |                      | 30 + 4¢                  | 1000                     | 1,612  |                          |                  | 5              |
| Lenoir              |                             |                      | 20 + 7¢                  | 1290                     | 1,229  |                          |                  | 5              |
| McDowell            |                             |                      | 30 + 4¢                  | 1328                     | .971   |                          |                  | 5              |
| Madison             | Yes                         | 1 Co.                | 10 + 7¢                  | 1013                     | 1,036  |                          |                  | 5              |
| Martin              | Yes                         | 1 Co.                | 10 + 7¢                  | 981                      | 1,482  |                          |                  | 5 1/2          |
| Mecklenburg         | Yes                         | 1 Co.                | Co. furnish cars         | 2055                     | 3,511  |                          |                  | 5              |
| Montgomery          |                             |                      | 30 + 4¢                  | 1189                     | .981   |                          |                  | 5 1/2          |
| Moore               |                             |                      | 30 + 7¢                  | 1369                     | .980   |                          |                  | 5              |
| Nash                |                             |                      | 30 + 4¢                  | 1337                     | .986   |                          |                  | 5              |
| New Hanover         |                             |                      | 30 + 4¢                  | 1629                     | 2,419  | 7,155 H.D.               |                  | 5              |
| Northampton         | Yes                         | 1 Co.                | 7¢                       | 959                      | 1,261  |                          |                  | 5              |
| Onslow              | Yes                         | 1 Co.                | 7¢                       | 1444                     | .560   |                          |                  | 5 1/2          |
|                     |                             |                      |                          |                          |  | 291.00                   |                  |                |

# PERTINENT INFORMATION ON LOCAL HEALTH DEPARTMENTS — Fiscal Year 1961-62

| Departments         | Under Local Gov. Retirement | Contract Travel Plan | Per Capita Buying Income | Per Capita Local Approp. | Special Project Funds | Single Unit After July 1 | Dental Deduction | Days Work Week |
|---------------------|-----------------------------|----------------------|--------------------------|--------------------------|-----------------------|--------------------------|------------------|----------------|
| Orange-P.C.-Caswell | Yes                         | 5 Cos.               | \$ 30 + 4¢               | \$ 1739                  | \$ 10,000 C.D.        |                          |                  | 5 Each         |
| Orange              |                             |                      | 30 + 4¢                  | 1109                     | \$ 4,940 M.C.H.       |                          |                  | 5              |
| Person              |                             |                      | 30 + 4¢                  | 1158                     | 12,400 H.D.           |                          |                  | 5              |
| Chatham             |                             |                      | 30 + 4¢                  | 1408                     |                       |                          |                  | 5              |
| Lee                 |                             |                      | 30 + 4¢                  | 974                      |                       |                          |                  | 5              |
| Caswell             |                             |                      | 20 + 7¢                  | 1065                     |                       |                          |                  | 5              |
| Pamlico             |                             |                      | 30 + 4¢                  | 1,438                    |                       |                          |                  | 5              |
| Pasquotank-C-Chow   | Yes                         | 1 Co.                |                          |                          |                       |                          |                  | 5 Each         |
| Pasquotank          | Yes                         | 4 Cos.               | 30 + 4¢                  | 1,043                    |                       |                          |                  |                |
| Perquimans          |                             |                      | 30 + 4¢                  | 905                      |                       |                          |                  | 5              |
| Camden              |                             |                      | 30 + 4¢                  | 1115                     |                       |                          |                  | 5              |
| Chowan              |                             |                      | 30 + 4¢                  | 1160                     |                       |                          |                  | 5              |
| Pender              | Yes                         | 1 Co.                | 30 + 4¢                  | 1200                     |                       |                          |                  | 5              |
| Pitt                | Yes                         | 1 Co.                | 30 + 4¢                  | 958                      |                       |                          |                  | 5              |
| Randolph            | Yes                         |                      | 15 + 7¢                  | 1226                     |                       |                          |                  | 5              |
| Richmond            |                             |                      | 30 + 7¢                  | 1,437                    |                       |                          |                  | 5              |
| Robeson             |                             |                      | 30 + 4¢                  | 1466                     |                       |                          |                  | 5              |
| Rockingham          |                             |                      | 35 + 7¢                  | 1,041                    |                       |                          |                  | 5              |
| Rowan               |                             |                      | 1 Co.                    | 1,494                    |                       |                          |                  | 5              |
| Rutherford-Polk     |                             |                      | 1 Co.                    | 1,687                    |                       |                          |                  | 5              |
| Rutherford          |                             |                      | 2 Cos.                   | 40 + 4¢                  |                       |                          |                  | 5 Each         |
| Polk                |                             |                      | 40 + 4¢                  | 1,264                    |                       |                          |                  |                |
| Sampson             |                             |                      | 40 + 4¢                  | 1,362                    |                       |                          |                  | 5              |
| Scotland            |                             |                      | 40 + 4¢                  | .737                     |                       |                          |                  | 5              |
| Stanly              |                             |                      | flat                     |                          |                       |                          |                  | 5              |
| Stokes              |                             |                      | 30 + 4¢                  | 1051                     |                       |                          |                  | 5              |
| Surry               |                             |                      | 15 + 7¢                  | 1,459                    |                       |                          |                  | 5              |
| Transylvania        |                             |                      | 15 + 7¢                  | 1,198                    |                       |                          |                  | 5              |
| Trell-Washington    |                             |                      | 15 + 7¢                  | 1,276                    |                       |                          |                  | 5              |
| Tyrell              |                             |                      | 15 + 7¢                  | 1,329                    |                       |                          |                  | 5              |
| Washington          |                             |                      | 30 + 4¢                  | 1,250                    |                       |                          |                  | 5              |
| Union               |                             |                      | 30 + 4¢                  | 1,207                    |                       |                          |                  | 5              |
| Vanee               |                             |                      | 30 + 4¢                  | 1,171                    |                       |                          |                  | 5              |
| Wake                |                             |                      | 30 + 5¢                  | 1,276                    |                       |                          |                  | 5              |
| Warren              |                             |                      | 30 + 4¢                  | 1,783                    |                       |                          |                  | 5              |
| Wayne               |                             |                      | 30 + 4¢                  | 1,008                    |                       |                          |                  | 5              |
| Wilkes              |                             |                      | 30 + 4¢                  | 1,307                    |                       |                          |                  | 5              |
| Wilson              |                             |                      | 30 + 4¢                  | 1,106                    |                       |                          |                  | 5              |
| Charlotte           |                             |                      | 30 + 4¢                  | 958                      |                       |                          |                  | 5              |
| Rocky Mount         |                             |                      | 30 + 5¢                  | 1,191                    |                       |                          |                  | 5              |
| Total               |                             |                      | flat                     | 1,540                    |                       |                          |                  | 5              |
|                     |                             |                      | late contract            | 1,357                    |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | 1,033                    |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | 1,499                    |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | 4,181 C.D.               |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | 6,040 H.D.               |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | 1,230                    |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | 1,391                    |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | 1,890                    |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | 3,962                    |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | 4,402 H.D.               |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | 2,551                    |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | \$ 1,555*                |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | \$ 1,437*                |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | \$ 32,688.40             |                       |                          |                  | 5              |
|                     |                             |                      | flat                     | \$ 4,379                 |                       |                          |                  | 5              |

\* Per capita buying for State of N. C.

\*\* Per capita local appropriation for health, for counties excluding cities \$1,435.

C.D.—Chronic Disease

H.D.—Heart Disease

M.C.H.—Maternal and Child Health

## DIVISION OF ORAL HYGIENE

To improve the dental health of the people of North Carolina is the objective of the Division of Oral Hygiene. The best and most effective method of reaching this objective is through a program of dental health education. Both the objective and method were determined soon after the turn of the century and grew out of the experiences of the practicing dentists between 1900 and 1918. In 1918, in North Carolina, the first dental public health program was activated in a state health department. This was done upon request of the North Carolina Dental Society.

Experiences during the 45 years since 1918 have taught us that even though the dentists, public health workers, and legislators are convinced that dental health is important to the general health of the individual and that regular and periodic visits to the family dentist are necessary, this does not mean that the individual citizens or masses of people believe it. Therefore, our basic and primary responsibility is that of educating the individual and the masses to the importance of dental health. The old saying, "An ounce of prevention is worth a pound of cure," is certainly applicable in improving dental health.

Prevention is our first method of improving dental health, but again we know that, in order for the population to profit from prevention measures to the fullest, they must understand, appreciate, and be stimulated to accept them. This must be done through the education of the masses. "Prevention through education" is the modus operandi of the Division. For such a program to be most effective, it must begin with the very young. As in former years, the major activities of the Division are directed to the children of the elementary school age. The objectives of the program are:

1. To help every school child appreciate the importance of a healthy mouth.
2. To help every school child appreciate the relationship of dental health to appearance.
3. To help all parents become aware of their children's dental defects and the possible consequences of their remaining untreated.
4. To promote the observance of good dental health practices including personal care, professional care, and community utilization of preventive measures.
5. To encourage all dentists to be active in their communities by rendering dental care and proper dental health education to their child patients.

To achieve these objectives we must reach the child, the teacher, and the parent. We know that a majority of the children under thirteen years of age have never visited a dental office which, of course, is one of the reasons why so many children are beset with apathy, fears, and superstition regarding the dentist and the services which he renders.

The dental health education program is carried on in the public elementary schools of the State. The Division of Oral Hygiene employs a staff of public health dentists who are assigned to the various counties on a fund matching basis and on a population-dental weeks ratio. While in a county

the dentist becomes a member of the local health department staff. The majority of the counties cannot afford to employ full-time dentists on their health department staffs. By participating in the program of the Division of Oral Hygiene, the counties benefit from the services of dentists devoting their full time to public health and to children's dentistry. They also receive many concomitant values of an established dental health education program planned, conducted, and supervised by dental administrators trained in public health.

As stated above, the public health, or school, dentists go into the elementary schools and into the classrooms. The dentist goes into the classroom not primarily to teach dental health, but to aid the classroom teacher whose responsibility it is to teach. He does this by providing her with factual information concerning dental health. The dentist talks to the children while he is in the classroom concerning dental health and dental problems and, in so doing, gives the teacher an opportunity to see and hear how he presents his material on dental health and how it can be related to the subject matter which is taught daily. Another important reason why the dentist visits the classroom is to afford an opportunity for the children to meet the dentist in a situation which is conducive to learning. No treatments are rendered in the classroom but the various types of services are discussed. This, we know, affords the child an opportunity to talk with the dentist, to see him, and to gain confidence in what he has to say and do.

The dentist inspects the mouths of all the children in order to determine need for dental care. The teacher observes while the dentist makes these inspections. When this is accomplished, the dentist and teacher have a record as to the amount of care needed and the level of dental health of her students. The next step in the procedure is to determine the number of children needing dental care. Based upon experience, this will be about 85 to 90 per cent of the children. Determinations are then made as to the number of underprivileged children in her class. Those needing care who are not underprivileged are referred to their family dentists by postal cards mailed to their parents. The card calls attention to the fact that the school dentist has found need for dental care and urges the parents to have the necessary work done. As many of the underprivileged children needing dental care as time and funds will permit are treated by the school dentist at the school in an area or room provided by the school for this purpose.

The treatments rendered these children at the school are done for two purposes. (1) The treatments rendered provide a service the child would otherwise not receive. These services are preventive in nature; for example, filling a tooth which, if not treated, would be lost. (2) The dentist uses the dental office at school while treating the underprivileged children for the purpose of doing demonstrative teaching. This, we are convinced, is both effective and acceptable. While the dentist is spending time explaining the dental conditions found in the patient's mouth to him, there are other children standing at the foot of the dental chair listening and observing these procedures. We believe that teaching through demonstration to small groups of children is a most effective educational method.

More than half of the children of the elementary grades have never visited a dental office. The impressions these children gain from their first

visit to the school-dentist office are lasting. Providing the school dentist with modern, up-to-date dental equipment not only affords the dentist an opportunity to render a better service to the child, but also gives the children an opportunity to see the arrangement, the neatness, and the cleanliness of a dental office. The children get to see the instruments which are used. The dentists explain the purposes of and manner in which each instrument is used, how the instruments are washed and sterilized in the autoclaves, and the reasons for such procedures. This has a great impact upon the minds of these young children. When they reach the age at which they become responsible for their own health care, they will have a better appreciation of the family dentist, his office, and his equipment. This is another way in which the dentist uses his office at school to do demonstrative teaching.

The Division provides strong supporting services to the program mentioned above. The dental health puppet show carries a dental message to thousands of children each year. Dental health education materials are developed, produced, and distributed to teachers, local health departments, dentists in private practice, parents, and others throughout the State. Consultation services are provided for teachers, health department personnel, and parent groups.

A statistical summary follows showing amounts and sources of funds expended and the services rendered by the Division for each year of the biennium, July 1, 1960-June 30, 1962.

#### Budget and Performance Statistics

| Sources of Funds Expended                  | 1960-1961           | 1961-1962           |
|--|---------------------|---------------------|
| General Fund                               | \$150,011.76        | \$167,641.34        |
| Departmental                               | 96,600.00           | 75,992.85           |
| Federal                                    | 25,705.41           | 25,924.43           |
| <b>Total</b>                               | <b>\$267,317.17</b> | <b>\$269,658.62</b> |
| <b>Services</b>                            |                     |                     |
| Average number of school dentists          | 16                  | 16.3                |
| Number counties receiving service          | 49                  | 52                  |
| Number schools visited                     | 399                 | 283                 |
| Number of children—mouths inspected        | 86,083              | 92,412              |
| Number of underprivileged children treated | 23,929              | 22,030              |
| <b>Amount of Type of Treatment</b>         |                     |                     |
| Number amalgam fillings                    | 27,164              | 22,804              |
| Number cement fillings                     | 9,969               | 6,337               |
| Number silver nitrate treatments           | 17,096              | 15,571              |
| Number children—teeth cleaned              | 19,509              | 18,583              |
| Number teeth extracted                     | 23,490              | 21,343              |
| Number topical fluoride treatments         | 3,242               | 2,679               |
| Number miscellaneous treatments            | 5,903               | 5,109               |
| <b>Total Number of Operations</b>          | <b>106,373</b>      | <b>92,426</b>       |
| Number children referred to family dentist | 34,746              | 37,202              |
| Number classroom lectures by dentists      | 2,331               | 2,720               |
| Total attendance at lectures               | 77,952              | 87,976              |
| Number performances of puppet show         | 387                 | 408                 |
| <b>Total attendance of puppet shows</b>    | <b>125,080</b>      | <b>182,830</b>      |

The Division has not been able to meet the requests for dental service to all the counties of the State during the biennium. Many of the counties which did receive services provided additional funds over the minimum amount required. This has been a result of our locating our staff dentists in areas comprised of adjacent counties, thereby being able to provide more continuity of programs and more services to more children in the areas served. The end result is a better and more acceptable dental program. We would hasten to point out that we believe this to be the plan of choice, even though many counties are denied services due to limitations of funds and staff. More funds and staff are needed if we are to render even a minimum of services to all of the counties of the State.

The Division has not requested funds for additional positions for public health dentists in several years, not because of lack of need, but because of the shortage of dentists who had an interest in dental public health. This picture has changed during the last half of 1962. For the first time since World War II, we have had more applicants for positions than there were budgeted positions. The prospect for the coming biennium looks very favorable from the standpoint of recruiting, and it is hoped that funds can be provided for additional positions.

There are approximately 1,200,000 children in the elementary grades in North Carolina. All of these children should have an opportunity to receive the benefits of our dental health education program. However, such is not the case. Based upon past experiences, 85 per cent of these children are in need of dental care, or 1,020,000 children. For the past several years, approximately 20 per cent of the children in the schools of the counties served by our Division have been designated as underprivileged. This figure is for the State and not for the counties worked. Based upon this fact, there would be 204,000 underprivileged children in North Carolina needing dental care. Referring to the statistical summary of services, you will note that our staff provided services to 45,959 children during the biennium. This represents only 22.53 per cent of those needing care. In order that we may more adequately provide services for the unmet needs among these children, it will be necessary to employ more dentists, dental hygienists, and dental health educators. To be realistic, we believe that we can recruit a minimum of three additional dentists each year of the coming biennium, provided funds are made available. With the twenty-three presently budgeted positions, this would provide for a staff of twenty-six public health dentists in 1963-1964, and twenty-nine in 1964-1965.

It can readily be seen that even with such an increase in staff dentists the needs cannot be met. An alleviating factor, and one which we are taking into account in planning, is the progress being made in fluoridation. This, too, resolves itself into a matter of education—education of the public to accept and demand the benefits of a proved preventive measure.

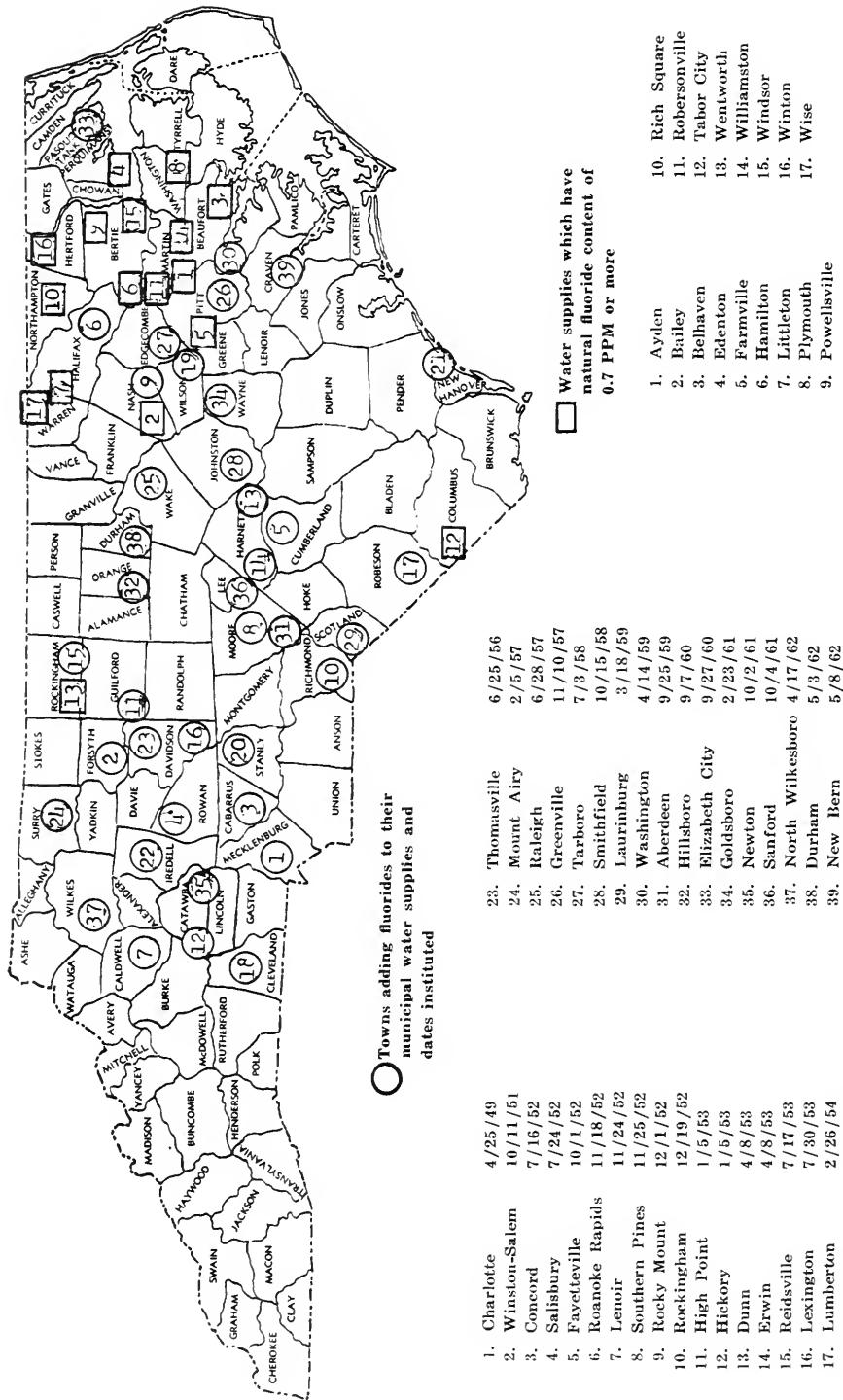
The most effective measure in the control of dental decay is that of fluoridation of communal water supplies and the use of topically applied fluorides in areas where communal fluoridation is not available. We have known for years that the institution of controlled fluoridation would reduce the incidence rates of dental decay by at least 65 per cent. That this is the most effective and economical method known to us today has been

verified by most competent scientists in our nation. Yet, when we see what has been accomplished in North Carolina in getting this economical and preventive measure to the masses of people, we must admit that we have not done the job of education properly. We have made gains in the number of towns in North Carolina instituting controlled fluoridation, but there is yet a great deal to be done. In spite of a concerted effort on the part of our State Health Director, public health workers, members of the dental profession, and persons in leadership positions in the many communities throughout the State, only 39 of the 324 municipal water supplies are presently being fluoridated. We are happy that, even though the supplies are small in numbers, these 39 supplies furnish fluoridated water to 1,200,000 persons. This represents 54 per cent of the population served by municipal water supplies or 67 per cent of the urban population in North Carolina. A significant portion of the time of the Division director and other staff members is spent in the promotion of communal fluoridation. We shall continue to promote this preventive program during the coming biennium with greater emphasis on educating the people to appreciate the need for and the beneficial effects to be derived from such a program. Attached is a map showing those towns which have the optimum amount of either natural or added fluorides in their municipal water supply.

During the past two years, we have provided more in-service training for our staff dentists through seminars, workshops, and staff conferences, again with the hope that this training will raise the level of appreciation of public health and its needs among our staff, thereby permitting them to render more effective services to the communities they serve. One of our staff dentists completed work for his Master's in Public Health during the past year. The question as to whether this training for staff dentists has been worth while and effective can be answered by the many favorable comments by local health directors, school principals, and superintendents attesting to the fine dental programs conducted by the dentists.

The challenge is before our Division to provide better dental health programs to more children of our State. We shall accept this challenge with re-dedicated interest and effort during the coming biennium.

NATURAL AND CONTROLLED FLUORIDATION IN NORTH CAROLINA



June 30, 1962

## PERSONAL HEALTH DIVISION

### Maternal and Child Health Section

The activities of the Maternal and Child Health Section can be divided into direct medical services, training programs, and special programs. There were 62,374 prenatal visits and 87,297 visits to the infant and preschool clinics. The child evaluation clinics saw approximately 233 children during the two-year period. The Maternal and Child Health Section supplies these clinics with health education literature in addition to large quantities of basic medications which are utilized in the clinics. Counties received continued support in the form of items of equipment for clinic usage. The professional fees for these clinics are paid through the local health departments by the Maternal and Child Health Section.

The premature care program provided the cost of hospitalization and professional fees for approximately three to four percent of all the prematures born in North Carolina. This care, however, is rendered to approximately 30-40% of the smaller premature infants which are born in the state. During the biennium a total of 597 prematures were supported by the program at a total cost of \$488,000. The cost of this program has increased yearly and in 1961 the average cost of the care of each infant was \$828. In addition to providing direct hospital cost, this program also has provided 50 Isolettes during this biennium which have been distributed to various hospitals throughout the state for utilization in the premature nurseries.

The Maternal and Child Health Section provided two pediatric consultants, one maternal and child health nurse consultant, and two pediatric nurse consultants, all of whom were available for consultation to the individual county health departments as well as the hospitals throughout the state and other agencies. These services primarily concern the standards of care being rendered in the various public health clinics, the quality of nursing care given in the premature units, as well as in the other nurseries in any of the hospitals throughout the state. Other agencies provided consultation included those concerned with day care.

Considerable emphasis has been placed upon the training programs for professional personnel at all levels. There have been nurse and health director conferences in at least 40 counties throughout the state concerning the problems involved in prenatal and postnatal care as well as well child supervision. There have also been as many conferences held to discuss perinatal and infant mortality. The pediatric nurse consultant has spent approximately 60% of her time discussing with and assisting hospitals throughout the state in developing and improving care to the newborn and premature infants. The maternal and child health nurse consultant has developed and planned many in-service county training programs for midwives. The annual midwife institute at Fayetteville had been discontinued because of lack of applicants. The Maternal and Child Health Section provides postgraduate courses for physicians held at the Bowman Gray School of Medicine and at Duke University School of Medicine. During the

past two years these courses have been attended by 111 physicians in the state. An orientation program developed at Caswell School several years ago has continued. Seventy-three nurses and eighty-two social workers have participated in these programs designed to acquaint these workers with the special problems of the families of children with mental retardation. This is also being carried out at O'Berry School in Goldsboro.

A number of special programs which have been in existence prior to this year were continued. The Maternal and Child Health Section continued to lend financial support to the Committee on Maternal Welfare of the State Medical Society by supplying funds to assist the Public Health Statistics Section in their search of records. The Section also assisted the Child Health Committee of the State Medical Society in its study of neonatal deaths. The fetal and neonatal mortality study begun eight years ago has continued in addition to the fetal and neonatal deaths previously recorded. All premature infants were included in the study in an effort to further evaluate the factors associated with prematurity. The Section continued to support the annual hospital reports of fetal and neonatal deaths which are sent to each hospital in the state and include a summary of all of their livebirths in addition to all the fetal and neonatal deaths. This is done in a coded form so that the individual hospital is aware only of its own identification. This has been received very successfully and has proven very useful. During the past year the Wake County Premature Study was completed and the final aspects of tabulation of the study on the social data material is being conducted on a grant to the psychology department at the University of North Carolina for complete interpretation. There have been several new projects which have been developed and are ongoing and these are the Warren County study of use of medical records in the care of patients, the Guilford County project for field training of public health students from the University of North Carolina, and the autopsy project of Robeson County which investigates causes of sudden death in infants. A study by the Maternal and Child Health Department of the School of Public Health, University of North Carolina, to determine the health needs and health care of children in day care centers in a North Carolina county has been started.

In the past year two large scale, multi-discipline, developmental evaluation clinics were developed and are now in operation. These clinics are at Bowman Gray School of Medicine and the University of North Carolina. To date they have seen and processed some 70 children. Their primary purpose is demonstration and teaching of personnel in the field of mental retardation and have a research aim as a secondary purpose.

#### Cancer Section

A numerical summary of the accomplishments of the North Carolina Cancer Control Program over a five-year period is set forth in the accompanying three tables as an index of accomplishment. The hospitalization program is still suspended each year for three to four months when funds are exhausted. The cost per patient in hospitalizations reflects both the per diem costs, as well as the average length of stay in the hospital. Over the years the length of stay is on decrease.

## Hospitalization for Diagnosis and Treatment

|  | 1957-58     | 1958-59    | 1959-60    | 1960-61    | 1961-62             |
|--|-------------|------------|------------|------------|---------------------|
| I. For Treatment of Cancer Cases Possible Cancer |             |            |            |            |                     |
| No. Hospitalized                                 | 561         | 690        | 638        | 862        | 761                 |
| Cost: Total                                      | \$97,615.96 | 117,515.62 | 116,693.77 | 139,671.40 | 143,880.18          |
| Cost Per Patient <sup>1</sup>                    | 174.00      | 170.31     | 182.90     | 162.03     | 189.06 <sup>2</sup> |
| II. For Diagnosis of Possible Cancer             |             |            |            |            |                     |
| No. Hospitalized                                 | 583         | 972        | 610        | 868        | 810                 |
| Cost: Total                                      | \$29,740.94 | 38,031.41  | 27,065.48  | 49,374.81  | 32,874.96           |
| Cost Per Patient                                 | 51.01       | 39.12      | 44.36      | 56.88      | 40.48 <sup>2</sup>  |
| % Positive for Cancer                            | 44%         | 47%        | 49%        | 41%        | 49%                 |

<sup>1</sup> Average cost per case includes hospitalization, surgery, and irradiation.<sup>2</sup> Shorter average stay in hospital.

## Cancer Detection and Diagnostic Clinics

## Five Year Statistics Report

|   | 1957   | 1958   | 1959   | 1960   | 1961   |
|---|--------|--------|--------|--------|--------|
| No. of Clinics <sup>1</sup>             | 14     | 14     | 17     | 19     | 21     |
| Detection Clinic Patients               | 12,608 | 10,845 | 12,967 | 11,167 | 12,527 |
| New Diagnostic Patients <sup>2</sup>    | 143    | 102    | 97     | 43     | 32     |
| Total Patients                          | 12,751 | 10,947 | 13,064 | 11,210 | 12,559 |
| New Cancer Cases Found                  | 224    | 200    | 296    | 293    | 262    |
| Cancer Previously Found                 | 45     | 49     | 39     | 30     | 73     |
| Total Cancer                            | 269    | 249    | 335    | 323    | 335    |
| Suspected Cancer Cases <sup>3</sup>     | 129    | 96     | 110    | 75     | 75     |
| Total Cancer & Suspected                | 398    | 345    | 445    | 398    | 410    |
| % New Cancer Cases                      | 1.75%  | 1.82%  | 2.26%  | 2.61%  | 2.08%  |
| Total % Cancer                          | 2.11%  | 2.27%  | 2.56%  | 2.88%  | 2.66%  |
| Total % Cancer & Suspected <sup>4</sup> | 3.12%  | 3.16%  | 3.40%  | 3.55%  | 3.26%  |

<sup>1</sup> Diagnostic Clinics are established with six of the Detection Clinics: Asheville, Durham, Greensboro, Rutherfordton, Rocky Mount, and Wilmington. At the Diagnostic Clinics specialists review referred patients and take biopsies for confirmation.<sup>2</sup> Patients referred by private physicians to Diagnostic Clinics.<sup>3</sup> Diagnosis incomplete for any reason, usually the time element. Most of suspected turn out to be positive.<sup>4</sup> All referred to private physician for treatment.

## Cervical Cancer Cytology

## Slides Examined At State Laboratory of Hygiene

|                                       | 1957   | 1958   | 1959   | 1960   | 1961   |
|---------------------------------------|--------|--------|--------|--------|--------|
| Total Slides (Papanicolaou)           | 19,888 | 27,486 | 31,566 | 36,994 | 45,105 |
| No. Cytologic Positive                | 257    | 381    | 501    | 430    | 490    |
| No. Suspicious of Cancer <sup>1</sup> | 241    | 292    | 373    | 436    | 593    |
| No. Slides from Private M.D.          | 11,172 | 17,559 | 21,637 | 27,794 | 33,510 |
| % Cytologic Positive                  | 1.29%  | 1.38%  | 1.59%  | 1.16%  | .90%   |
| % Positive plus Suspicious            | 2.50%  | 2.44%  | 2.73%  | 2.36%  | 2.22%  |
| % Slides from Private M. D.           | 56%    | 63%    | 68%    | 75%    | 74%    |

<sup>1</sup> Chiefly Grade III slides of inconclusive morphology.

The highest hopes for a solution of the cancer problem are now being set forth by knowledgeable participants in the very extensive research program now under way in this disease. This research program is financed by the Federal Government, together with a large number of private and state institutions throughout the Nation wherever research programs can be carried out in a penetrating manner. These high hopes for an early solution of the second leading cause of death and the most refractory of man's illnesses, includes a belief that preventive measures will be made available shortly after the causative factors have been elucidated. Such a prospect makes all the more urgent an adequate program of treatment, where cure or marked improvement is possible, especially for all those who stand to die of cancer contracted at the very moment when its prevention is imminent. Long continuing disappointments for all these high hopes is not only possible, but probable.

#### Biennial Report—Crippled Children's Section

There has been no significant change in the programs supported by the Crippled Children's Section during the biennium ending June 30, 1962. There has, however, been significant change in the volume and cost of supports of the various handicapping entities. The cost of hospitalization increases from year to year with the yearly increases in the cost analysis per diems. In the calendar year 1960—clinic service was accorded 13,614 children with 25,665 clinic visits, 1764 were hospitalized for 18,568 hospital days and 1021 children were furnished appliances or prostheses numbering 1387. Total cases served were 14,693. In the calendar year 1961 service was accorded to 16,391 children, 14,896 receiving clinic service with 30,277 visits and 2041 hospitalized for 24,244 hospital days. 2774 appliances were furnished to 1361 children. The last quarter of each fiscal year has for many years found us short of funds and forced to deny or delay service or to depend upon such organizations as the National Foundation to assist in support or Vocational Rehabilitation which has frequently come to our rescue during lean months by accepting physical rehabilitation for those of our beneficiaries from 19 to 21 years of age. The end of the fiscal year 1961-62 found us with more than sufficient funds due to a considerable increase in our Federal Grants-in-Aid for the year and to extraordinarily large reimbursements from insurance and from families able to support part of the cost of treatment.

The Section is presently supporting 45 orthopedic clinics, 7 Heart and Rheumatic Fever Centers and 4 Speech and Hearing Centers. It supports the diagnosis and treatment of disorders of hearing, only, in two teaching facility clinics and heart surgery in four centers. There are rostered for service to the section 158 cooperating specialists, 33 hospitals and 18 appliance dealers.

In 1961 the prevailing entities treated were—

|  |       |
|--|-------|
| Congenital defects (not otherwise coded) .....                   | 2,650 |
| Disease of bone or organ of movement (not otherwise coded) ..... | 1,702 |
| Flat foot (congenital and acquired) .....                        | 1,608 |
| Polio residuals .....  | 1,267 |
| Clubfoot .....   | 1,211 |
| Rheumatic Fever .....  | 1,057 |

|   |     |
|---|-----|
| Cerebral Palsy .....  | 938 |
| Congenital heart disease .....                                      | 785 |
| Due to trauma (other than burns) .....                              | 713 |
| Disease and handicaps not congenital (not otherwise coded) .....    | 677 |
| Cleft lip and/or palate .....                                       | 391 |
| Curvature of the Spine (other than congenital, polio or Tbc.) ..... | 341 |
| Burns .....   | 259 |
| Hearing defects .....   | 222 |
| Speech defects .....  | 194 |

For several years we have desired to add to our programs one for the support of convulsive seizures. Early in the last fiscal year it was apparent that we could afford such a support and attempts were made to interest several medical centers in setting up a pilot project with the view of making diagnostic and treatment service available for the medically indigent so handicapped. None of the centers approached was interested enough to submit tentative plan material for such a support. It is hoped that a pilot center can be set up before the end of 1962.

The Section has suffered in the past two years from a lack of ancillary personnel. Consultant nurses have retired without replacement and several physical therapists have left the service for higher paid employment. The section needs two consultant nurses and three physical therapists and it is hoped that salary schedules can be changed to make these positions more attractive.

The present fee schedules for our cooperating specialists have not been increased for over 10 years and it is planned to implement a modest increase based upon the State Medical Society's listing of the relative value of surgical entities and other physicians' services.

#### Chronic Disease Control

The program for *Care of the Chronically Ill* has, in the biennium 1960-62, experienced an expansion and awakened interest so outstanding as to mark it as a leading item in the newer developments in public health practice. This development has, in great part, been made possible by federal congressional appropriations for this specific purpose. The appropriated funds are administered by the U. S. Public Health Service, in part, through formula grants to State Departments of Public Health. The grant so made to North Carolina, first in 1961, made it possible to begin expansion of the county health department programs in *Home Care* of the Chronically Ill. These programs are designed to prevent chronically ill patients from progressing to physical and economical dependence, through omission of that restorative and rehabilitative care that can enable them to retain and develop to the maximum the capabilities that remain to them. The patient recovering from a stroke is one of the chief benefactors from such a program and the high incidence of this illness makes his care a rewarding service to the patient and to the community. Any chronically ill patient experiencing extended confinement to bed will need such care when at home, on returning there from hospital, nursing home, or continuously at home.

As administered by the State Board of Health, these programs are set up in county health departments with funds added for one or more addi-

tional nurses to make nurse time available for this program. In larger communities the services of a physical therapist are provided on a full or part time basis. The home care patients are referred to the health department by practicing physicians who continue in charge of every service provided for these patients in their homes. A registry of the chronically ill, kept up to date with all information available from hospitals, the press, and other sources, can make possible a reasonably adequate coverage of needs in this field. Where this service has been introduced in North Carolina, it has secured the loyal support of the patients, the physicians, and the community, including county commissioners. Eight counties are now receiving aid from this fund and fifteen or more are preparing project requests. With increased federal funds for chronic disease control considered most likely in 1962-63, plans have been made for extending Home Care Service into additional counties, as far as funds make possible. These county programs are initiated after local application is made, based on formal approval by the county medical society, and the interest of the local health department, and when reasonably adequate, coverage of the basic public health activities is in force.

This home care program is a chief item in the rapidly developing plans for the *Aging*. The care for this group cannot be limited to the services available in hospitals and convalescent homes, but must be carried into the individual home, with their hospital service largely limited to acute phase of illnesses.

Another institution, the *Nursing Home*, plays a very large role in the care of the Aged, and their licensure and standards were in March 1961 made a duty of the North Carolina State Board of Health. In the absence of state appropriation for this service, a very large portion of available Chronic Disease funds were temporarily allotted for the development of the program. It is a very large and expanding program, as is shown in the report of the Nursing Home Section elsewhere in this biennial report. The *Governors Coordinating Commission on Aging* (the State Health Director is vice chairman) is intimately concerned with the Board of Health activities in this field. The annual *Special Week on Aging*, most recently July 15-21, 1961, is an occasion for stepped-up publicity on medical services available to the Aged, and is a stimulus for filling gaps in these services.

Continuing programs in Chronic Disease Control include the *diabetes* detection program in county health departments. Approximately one third of the local health departments have been furnished the Glover-Edwards Kit for bloodtesting. Not all these counties are carrying on active programs, but many are following through, with tests made on all Health Department contacts with individuals in high incidence groups (relative to diabetics, or of age over 40, or pregnant). Nearly 5000 tests made in the year ending June 30, 1962 revealed that more than 2% of those tested were diabetics. The importance of this program with its referral service to physicians for confirmation and prompt treatment, lies in the results of adequate treatment, in preventing or slowing the deterioration characteristic of this illness.

A program for prevention of blindness through early detection of *Glaucoma* is an important item in the Chronic Disease Program. In North Caro-

lina it is supervised by the Blind Commission as part of its general preventive program. The health departments, state and local, stand ready to help in the follow-up to secure treatment for those found on tonometry in the clinics to have elevated pressures. The program should have statewide coverage.

*Neurological and Sensory* diseases is another chronic disease field for which categorical federal funds are becoming available to states and institutions. The North Carolina State Board of Health, in May 1962, prepared an application for a grant for a survey of incidence, facilities, and personnel available for a broad program throughout the state for meeting needs for Medical Care in this important field. A grant of \$31,347.00 was awarded in June 1962 for expenses of this survey, which is to be made in the coming year.

Other specific programs in chronic diseases are carried out in the State Board of Health Sections on Tuberculosis, and Venereal Diseases.

#### Heart Section

The Heart Disease Control program has continued (without any State funds yet appropriated for it) in the three lines of Professional Education, Diagnostic Service, and Home Nursing.

Professional Education in Heart Disease, aimed at better diagnostic possibilities has been continued. One course in electrocardiography is given at Duke University each year for approximately 40 students per session. A quarterly seminar on Heart Disease sponsored by the County Medical Society was presented in one county, the speakers coming from the three university medical centers, with local participation in clinical presentations. In addition, a series of statewide county and regional seminars were begun in 1960, being sponsored by county medical societies, with the speakers coming from the same medical centers. These programs or one day seminars, chiefly on the preventive measures for heart disease, usually have audiences of about forty. It will take several years to cover the State once by this method. Several teaching laboratories have been aided with needed equipment and supplies. They are regarded as sources of high quality instruction for all who attend sessions there. The Heart Clinic at Sylva continues its unique service as a public health institution.

The program of Home Care for the Chronically Ill at home (heart patients) has expanded during the year into specialized "Stroke Programs" with increased staffs in nursing and physical therapy. This program is underway in two counties (Mecklenburg and Cabarrus) with several others planning the expansion when personnel can be assembled.

At the close of the biennium, six county health departments had installed Heart Home Nursing programs (Cabarrus, Guilford, Halifax, Mecklenburg, New Hanover, and Orange district) with staff public health nurses carrying most of the activities. Employment of public health therapists on local health department staffs is economically sound for the more urbanized populous areas. Two of the above counties have employed physical therapists, and two others are seeking applicants. Plans for the new year call for continuing expansion of these service programs at the local level.

Other activities in the heart field include financial encouragement to promote acquisitions of fluorescent microscopes and staff training in streptococcus diagnosis; statewide physical therapist service in rehabilitation clinics. For the coming year, a project has been designed and financed for a laboratory epidemiological survey of trace elements in public water supplies for any possible leads in planning North Carolina regional differential mortality rates from heart disease.

#### Nutrition Section

The goal of the nutrition program is the best health obtainable by all segments of the population through the consumption of adequate diets. To accomplish this goal emphasis is placed on improving the eating habits of people with the greatest nutritional stress: children and young people, pregnant women, and people on special diets. District nutritionists have shared the responsibility with nursing and health education consultants for 119 inservice education programs, involving 1,801 local health department personnel. Nutritionists have demonstrated the value of group teaching as well as individual counseling in prenatal and infant clinics. They have given individual counseling to 4,118 parents at 833 orthopedic, rheumatic fever, prenatal, infant, and well child clinics. They consulted on food service at crippled children's camps at Washington and Salisbury, North Carolina.

In 1961, North Carolina initiated the distribution of donated commodities to needy families. The Nutrition Section was represented on the state planning committee and staff members have trained community lay and professional leaders, as well as recipients of the foods in the use of unfamiliar items.

In cooperation with the Civil Defense Administration, emergency feeding classes have been held to help families prepare for their water and food supplies before the emergency arises.

Nutritionists have emphasized the physical fitness program as they work with teachers, school lunch personnel, and community groups to develop classroom activities, to help to make the school lunch an educational experience, and to inform parents of the food needs of the children. Forty-two meetings have been held with 1,830 teachers. Seven food habit surveys have been conducted with 1,877 children. The results of these surveys have been used as a basis for nutrition education programs in the schools. A joint meeting of the staffs of the Oral Hygiene Division and the Nutrition Section in December, 1961, has resulted in closer coordination when developing nutrition and dental health programs in schools.

Local health departments are putting more stress on diabetes detection and heart disease programs. Nutritionists have participated in seminars on the public health aspects of caring for patients with diabetes and stroke, and in inservice education for local health departments related to dietary treatment of these disorders. They have attended 147 clinics and have interviewed 359 patients on diets for diabetes, heart disease, and other chronic diseases. Since weight control is a factor in both the treatment of these conditions and in the prevention of them, series of weight control

classes have been taught by the nutritionists. Patients are referred by private physicians, from local health department clinics, and by welfare case workers. The plan for the classes has been approved by the county medical society in each case. Forty-two classes have been held with 728 teenagers and adults attending.

Nutritionists continue to cooperate with the North Carolina Memorial Hospital referral program. During the biennium the Veterans Administration hospitals in Fayetteville and Durham have inaugurated similar programs for their patients who need follow-up at home. At the request of an internist in private practice, a monthly nutrition consultation program was started for his patients and later offered to all members of the Wilson County Medical Society. Patients are referred to the county health department for conferences with the nutrition consultant and reports are sent to the referring physicians. Similar consultation is given in other health departments on a less regular basis.

Consultation has continued to be given to hospitals and institutions. Forty-five visits have been made to state institutions, 38 to county institutions, 30 to Hill Burton hospitals, and 49 to others. Blueprints and specifications have been reviewed for 42 Hill Burton hospitals that plan for renovations or for designing of new kitchens. Work with prison menus continues toward providing a nutritionally adequate diet for this group.

A major effort is the Hospital Food Service Supervisors' Institute held yearly. The value of this activity is illustrated by the fact that more hospitals are sending food service supervisors each year and that hospital administrators also find it worthwhile to attend.

In March, 1962, the Nutrition Section lost its chief, Mrs. Pearl Camstra, by death. Mrs. Anne Painter, nutritionist, was on sick leave and died in July, 1962. Miss Williams, Miss Martin, Mrs. Long, and Mrs. Suggs resigned. Mrs. Farthing was granted a year's leave of absence from September, 1961 to August, 1962. Miss Mooring was granted a leave of absence from July, 1960 to December, 1961 to work on a special project with the American Dietetic Association. Six new staff members joined the staff during the two-year period, leaving five positions unfilled. At the end of the biennium the staff consisted of an acting chief, six nutrition consultants, and two dietary consultants.

One staff member helped to write the nutrition course outline for the new School of Nursing at Eastern Carolina College. She is now a full-time member of that college faculty.

Three nutrition interns completed their training during the biennium. All have joined the staff as consultants. A month's supervised field experience was given to a graduate student from Pennsylvania State University. Orientation to public health with some field experience was given to nutrition students at the School of Public Health at the University of North Carolina and to dietetic interns from Duke Medical Center.

Inservice education has been provided for the staff through quarterly staff meetings. An institute on Nutrition in Chronic Disease and in Relation to Aging and Care of the Aged, jointly sponsored by the North Carolina State Board of Health and the U. S. Public Health Service, was held

at the School of Public Health, University of North Carolina, August 28-September 1, 1961. Forty-four nutritionists and other public health workers from the southeastern states attended. Professional development of the staff was furthered by attendance of the Community Mental Health Institute, Candler, N. C., the Community Nutrition Institute, Syracuse University, the Institute on the Nutritionist in Health and Welfare Programs for Children, Pittsburg State University, and the Oklahoma Mental Retardation Training Center, Tulsa, Oklahoma.

Staff committees are working on new and revision of existing educational materials for use of public health workers with their patients. One pamphlet on family food budgeting, "The Choice is Yours," has been completed.

A bimonthly newsletter, "Nutrition Nuggets," is sent to each health department for the information of public health nurses and to other professional people on request. This publication contains items of current interest; such as, the prenatal diet, the low sodium diet, family budgeting, good nutrition for the preschool child, and reviews of current books.

Several members of the staff served as officers and committee members of professional associations. Miss Asenath Cooke was President of the North Carolina Home Economic Association. Miss Sallie J. Mooring served as staff member for the Conference at Michigan State University for Dietitians and Nutritionists Giving Consultation to Nursing Homes.

Because of the shortage of qualified dietitians and nutritionists, staff members have participated in Career Days at schools in the Career-O-Rama at Charlotte and talked with high school and college classes on opportunities for employment in dietetics and public health. Miss Meadors served as Chairman of a North Carolina Dietetic Association committee that printed a pamphlet to help with recruitment called, "Choose Your Career as a Nutritionist."

### The Nursing Home Section

In 1955 The General Assembly amended the Hospital Licensing Act to require that nursing homes be licensed and become the responsibility of the Medical Care Commission. On March 17, 1961, the General Assembly transferred the licensing authority for such homes to the State Board of Health under provisions of Senate Bill 13. Just prior to this time the Federal Government had made funds available across the nation for improving the status of nursing homes; \$68,000.00 was allocated to North Carolina to be administered through the State Board of Health. With this transfer of the authority, there was appointed a staff consisting of a chief of the section, a nursing consultant, physical therapist, dietitian, and sanitarian.

To augment the consultative, educational, administrative, and licensing responsibilities of the staff, research and service projects were initiated through the School of Nursing of the University of North Carolina, through the Department of Physical Therapy of the Medical School of the University of North Carolina, with Duke University Hospital and the Durham County Health Department, in conjunction Randolph County Health De-

partment, and with cooperation of the North Carolina Association of Nursing Homes. These projects had as their primary concern a survey of and improvement in nursing services, survey of the needs of patients for physical therapy, the training of students in physical therapy, the participation of the county health department in patient care, and a demonstration of the value of a recreational program in nursing homes.

The following tables demonstrate the rapid growth of the nursing home program:

Table No. 1. Total Homes and Net Homes Licensed Since 1956.\*

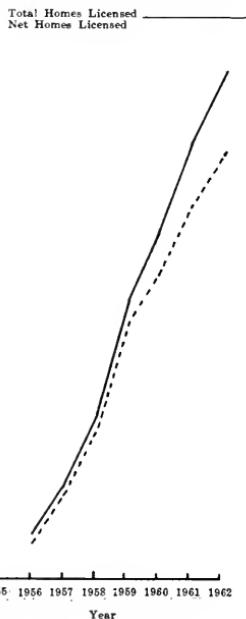


Table No. 2. Total Beds and Net Beds Licensed Since 1956.\*

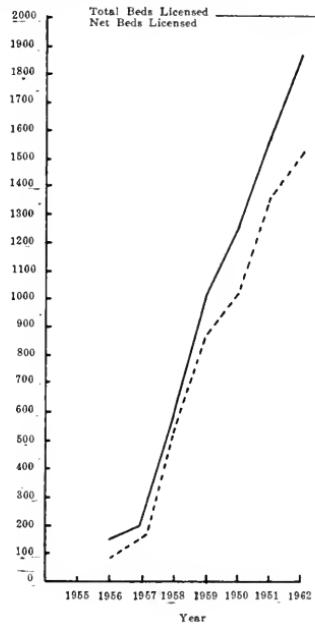


Table No. 3. Distribution of Homes According to Size.

| Size of Home  | Homes Licensed | No. of Beds | Av. Size   | Median     |
|---------------|----------------|-------------|------------|------------|
| 11 - 25       | 17             | 341         | 20         | 21         |
| 26 - 40       | 21             | 714         | 33         | 33         |
| 41 - 55       | 4              | 194         | 48         | 49         |
| 56 - 70       | 3              | 185         | 62         | 63         |
| 71 - 85       | 1              | 85          | 85         | 85         |
| 86+           | 0              |             |            |            |
| <b>Totals</b> | <b>46</b>      | <b>1519</b> | <b>133</b> | <b>130</b> |

\* Difference between the total and net figures reflect the loss of nine homes—Eight to the State Board of Public Welfare as homes for the aged and infirm and the other closed permanently.

Funds are derived from the Federal Government and are considered a part of the chronic disease allocation to the State Board of Health.

## SANITARY ENGINEERING DIVISION

The activities of the Sanitary Engineering Division are concerned with the non-medical responsibilities of the State Board of Health in the field of environmental sanitation and are directed primarily at groups, communities or areas rather than service to the individual because of the wide coverage of environmental sanitation programs.

The Division's objectives have been and continue to be the improvement of environmental conditions that affect the health and comfort of the people of the State. In accomplishing this, the personnel works with representatives of industry, organized community groups, professional groups, municipal and county officials, and with a large number of other State agencies. The Division is responsible for the enforcement of public health laws and regulations, and in the technical supervision of local sanitation programs in connection with the following:

1. Public, semi-public and private water supplies
2. Private and institutional sewage disposal
3. Creation of Sanitary Districts
4. Sanitary engineering assistance to local health departments, municipalities, and other agencies
5. Sanitation of milk and shellfish
6. Sanitation of public lodging and eating places
7. Sanitation of public and private hospitals and institutions
8. Sanitation of meat markets, abattoirs, frozen food lockers and poultry processing plants
9. Control of malaria and other insect-borne diseases
10. Salt marsh mosquito control
11. Sanitary disposal of garbage and refuse
12. Sanitation of bedding manufacturing
13. Environmental health programs and radiation protection and air pollution control

In addition to the above, most of which are covered by State laws, the Division assists in the training of local sanitarians, the development of local sanitation ordinances, preparation and distribution of technical bulletins relating to environmental health, and acts as consultant to local health departments and other State agencies on problems relating to sanitary engineering and sanitation.

The staff of the Division is comprised of 47 full-time employees consisting of 17 sanitary engineers, 18 sanitarians, 1 entomologist, 3 bedding inspectors and 8 secretaries.

During the past biennium, several pieces of legislation relating to sanitation and environmental health were passed by the North Carolina General Assembly. The more important State-wide ones were: (1) Authorizing County Commissioners to regulate the collection and disposal of garbage and refuse; (2) Providing for compulsory meat and poultry inspection; (3) Providing for the creation of metropolitan sewerage districts; (4) Authorizing counties to acquire and construct water and sewerage systems; and

(5) Several bills relating to Sanitary Districts. A number of local bills authorizing plumbing inspection and garbage and refuse control were also passed.

We continued our effort, together with the Governor's Committee on Migratory Labor, to secure legislation regarding the housing and sanitation of migrant labor camps, but this legislation failed to pass the General Assembly.

The Legislature authorized the employment of one additional Sanitary Engineer and one Sanitarian, and we secured special funds during the biennium from the Governor and Council of State, enabling us to employ one additional engineer to augment our radiological health program and activities.

Regulations previously adopted regarding the vending machine industry were revised after a series of public hearings with local health directors, and will become effective January, 1963. We continued our assistance to local health departments in the preparation and review of local sanitation ordinances, particularly those concerned with plumbing and swimming pools. Considerable time was given to work with the State Building Code Council and State Plumbing Association in the revision of the State Plumbing Code. We have no official authority in this field, but are called upon frequently by architects and others to interpret the State Code.

The training of new sanitation personnel and the in-service training of older employees is vital to the orderly development of environmental sanitation programs and much time has been given to this activity. With rapidly changing developments in environmental sanitation, it is imperative that sanitation personnel be kept apprised of these developments. Five educational meetings were held during the biennium in the form of special training courses for sanitarians throughout the State. Subjects covered during these in-service training courses were:

1. Vending Machine Sanitation Regulations
2. Workshop on Concrete
3. Swimming Pool Sanitation
4. Sanitation Program Planning and Execution
5. New Planning for Old Programs

Fifty-five sanitarians were given short course training at the School of Public Health and at North Carolina State College during the biennium.

Foodhandling employees continue to receive attention and during the biennium forty special courses for workers in institutions and industries were held. Several of these schools were given in cooperation with the North Carolina State Travel Council and the State Department of Public Instruction. The emphasis placed on this phase of our food sanitation program has, in our opinion, helped to maintain the high level of food sanitation service found in our public eating establishments.

Work has continued in the field of milk sanitation and considerable progress has been shown in the improvement of milk handling methods on the farm, as well as improvements to pasteurization processing plants. At present, 72 counties and one municipality have ordinances requiring the

100% pasteurization of milk and approximately 99.8% of the total milk sold in the State is pasteurized.

Our program of assistance to the State Prison Department in the inspection of all highway prison camps continued and a number of improvements were secured at these camps with special attention being given to proper sewage disposal and in improving existing sewage disposal facilities at the camps. We worked very closely also with the State Highway and Public Works Commission relative to the water and sewage facilities at roadside rest areas, particularly on the Interstate Highway system.

During the biennium, a Nursing Home Section was organized in the State Board of Health and one of the engineers assigned to institutional sanitation activities transferred to the Nursing Home Section. This transfer, however, did not solve any of our problems in that the Sanitary Engineering Division is still involved with rest homes, which are under the supervision of the State Department of Public Welfare. This program continues to grow and requires considerable time on plan review, consultation with prospective rest home builders and with representatives of State Welfare Department on matters relating to sanitation and building requirements.

Progress continues to be made on the Salt Marsh Mosquito Control Program throughout eastern North Carolina. Mosquito control districts have been authorized by the Salt Marsh Mosquito Law, and such a district was created at Ocracoke and is now functioning. Excellent long-range control work is being done in Dare, Carteret, Onslow and Pamlico Counties through drainage and the construction of canals. Nine draglines are presently operating on ditching work in these counties.

During the past biennium, \$235,000.00 of State funds were allocated to the Salt Marsh Mosquito Control Program, while contributions on the part of local communities taking part in this program amounted to over \$356,000.00. This is an indication of the interest on the part of the people living in the eastern counties in the control of the salt marsh mosquito.

Another activity, which was previously reported—the demonstration Vector Control Project in Rocky Mount—has been expanded to cover similar projects in Charlotte, Greensboro, High Point, Fayetteville, Leaksville, Reidsville, Madison, Mayodan, Statesville, Mooresville, Murphy and Roanoke Rapids. Through these projects, we have been able to focus attention on the general sanitation deficiencies in these towns and an effort is being made to secure garbage and refuse disposal, eliminate fly-breeding, control rats, secure connections to sewer systems, and secure other general improvements.

Other special activities have been carried on in the Insect Control Program and some work has been done on the study of herbiciding in small farm ponds. Time was devoted to surveillance for Anopheline mosquitoes on large impoundments owned and operated by power companies. In addition to work with the Virginia Electric and Power Company, considerable time was given to working with officials of the Duke Power Company in planning mosquito control programs on Lake Norman, which is a new reservoir being formed by the construction of the Cowans Ford Dam. Recommendations have been made for refuse collection and disposal in areas adjoining the lake, and meetings have been held with representatives

of all of the health departments of the counties bordering the lake in connection with sewage disposal and other sanitation problems on the shoreline of the lake.

One of the major activities of the Division during this biennium centered around the storm which hit the Dare Coastal area in March 1962. Unusual flooding occurred at Nags Head and the other Dare beaches, and in addition to property damage, did considerable damage to private water supplies and sewage disposal units. Since there is no central water supply system in the Dare beaches area, particular attention had to be given to checking the private water supplies at all of the public eating and lodging places, as well as those at a great number of cottages. For several weeks following the storm, from eight to fifteen members of our staff were involved in work in connection with the protection of water supplies and assisting the property owners in this area to reopen their establishments. We also secured special emergency funds through the Local Health Division and three additional sanitarians have been assigned to Dare County during the summer months to carry on the water testing program. The Division secured permission to purchase a small trailer laboratory, which will be used for emergency water work, particularly water testing as soon as the necessary laboratory equipment can be secured. Plans are underway to develop a central source of water supply for the Nags Head area, and preliminary plans and specifications, together with application for planning grant, have been submitted to Federal officials by the towns of Nags Head and Kill Devil Hill.

In the field of water supply, the radiation monitoring program has continued, and an additional report was published during the year giving the radiation background of surface waters used as a source of public water supply.

Considerable improvement continues to be made in the development and improvement of municipal water supply and sewage disposal facilities. During the biennium, contracts were let by cities and towns for water improvements amounting to \$11,414,340.00; for sewerage improvements \$14,453,000.00; and, for combined water and sewerage projects \$6,496,178.00.

New Sanitary Districts were created during the biennium at Rockland, Boger City, Charlotte College, and boundaries were extended at East Marion Sanitary District. This gives us a total of 29 districts authorized by the State Board of Health.

Also in the field of water supply protection, a special project was started in cooperation with the Public Health Service and State Civil Defense Organization in checking the quality of water being stored in fallout shelters. A special study was also made of water supplies at State Parks. During the biennium, the towns of Durham, Elizabeth City, Goldsboro, Hillsboro, New Bern, Newton, North Wilkesboro, and Sanford began fluoridating their public water supplies, bringing to thirty-eight the number of towns now adding fluoride for the prevention of dental caries.

We continued to devote considerable effort to the garbage and refuse disposal problem. Because of the Act passed by the General Assembly, we worked with a number of local communities in the development of ordinances to make this act applicable in those communities. During the bienn-

nium, five new sanitary landfills were placed in operation and it is estimated that eighty such landfills are now operating.

Shellfish sanitary surveys have been made of the growing waters in Nelson Bay, White Oak River, Stumpy Point Bay, Silver Lake, New River, Back Sound, Stump Sound, Lockwood Folly River, Myrtle Sound, Bogue Sound, and Newport River. Special work was done on a number of private clam gardens. Because of several outbreaks of infectious hepatitis, in which shellfish were suspected, more emphasis had been placed on this program. Infectious hepatitis was reported from the Delaware Bay area in New Jersey and also from Mississippi. Some of these oysters were being sold in North Carolina. We also checked on oysters shipped from Florida, which had come from a packing plant where two workers were infected with Typhoid Fever. This program is carried on cooperatively with the State Department of Conservation and Development and with the U. S. Public Health Service.

During the biennium, we began to make some progress in the field of air pollution. A number of surveys were made to assist local communities involved in the development of local ordinances requiring smoke abatement, and improvement in other operations which were allegedly the cause of air pollution complaints. Our radiation and air pollution programs are operating jointly, since they are so closely related. Through the funds previously referred to as being secured from the Council of State or the Governor's Emergency and Contingency Fund, it became possible to assign one engineer full time to this activity. Equipment has been purchased and plans have been made to carry out an organized progressive air pollution control program in the future. This may well develop into one of our most important environmental sanitation activities.

A numerical tabulation of some of the major activities of the Division is given in the following tables:

#### ENGINEERING

|   |       |
|---|-------|
| Public water supply inspections .....                               | 659   |
| Well sites examined and approved .....                              | 233   |
| Water samples collected .....                                       | 388   |
| Sewerage system inspections .....                                   | 19    |
| Water supply plans approved .....                                   | 106   |
| Sewerage works plans approved .....                                 | 46    |
| Sewerage plant plans furnished .....                                | 92    |
| Sources of water supply examined for interstate carriers .....      | 30    |
| Watering points examined for interstate carriers .....              | 55    |
| FHA and VA developments investigated .....                          | 56    |
| FHA and VA subdivisions processed .....                             | 120   |
| Special conferences with engineers, city and county officials ..... | 3,917 |

#### SANITATION

|  |       |
|--|-------|
| Milk plant inspections .....                         | 441   |
| Dairy farm inspections .....                         | 3,537 |
| Milk surveys completed .....                         | 110   |
| Milk plant plans reviewed .....                      | 13    |
| Special investigations (milk) .....                  | 13    |
| Conferences regarding milk .....                     | 2,173 |
| Foodhandling establishments inspected .....          | 3,978 |
| School lunchrooms inspected .....                    | 383   |
| Abattoir and meat processing plants inspected .....  | 134   |
| Meat market inspections .....                        | 1,217 |
| Frozen food locker plant inspections .....           | 44    |
| Poultry plant inspections .....                      | 42    |
| Plans reviewed for foodhandling establishments ..... | 221   |
| Foodhandler schools held .....                       | 40    |

|   |       |
|---|-------|
| Private water supplies inspections . . . . .            | 6,566 |
| Institutional water supply inspections . . . . .        | 402   |
| Private sewage disposal inspections . . . . .           | 5,702 |
| Institutional sewage disposal inspections . . . . .     | 483   |
| Privy inspections . . . . .                             | 2,515 |
| Summer camps inspected . . . . .                        | 43    |
| Institution inspections . . . . .                       | 898   |
| Hospital plans reviewed . . . . .                       | 52    |
| Nursing/Rest/Convalescent Home plans reviewed . . . . . | 365   |
| Public school inspections . . . . .                     | 233   |
| Lodging places inspected . . . . .                      | 425   |
| Complaints—general sanitation . . . . .                 | 539   |
| Special investigations . . . . .                        | 241   |
| Shellfish packing plants inspected . . . . .            | 3,056 |
| Retail seafood market inspections . . . . .             | 626   |
| Patrol inspections of restricted waters . . . . .       | 329   |
| Plans distributed (shellfish) . . . . .                 | 7     |
| Number of court cases . . . . .                         | 9     |

**INSECT AND RODENT CONTROL**

|  |        |
|--|--------|
| No. times communities assisted in planning or supervising landfills . . . . .      | 291    |
| Applications received for permits to impound water . . . . .                       | 714    |
| Impounding permits granted . . . . .   | 959    |
| Mosquito surveys made . . . . .  | 365    |
| Arthropods identified . . . . .  | 7,336  |
| No. times communities assisted in planning or supervising insect control . . . . . | 1,594  |
| Impounded water inspections . . . . .  | 335    |
| Inspections of refuse storing, collection and disposal . . . . .                   | 609    |
| Inspections of bedding factories . . . . .   | 4,228  |
| Inspections of retail bedding establishments . . . . .                             | 14,680 |
| Pieces of bedding removed from sale and/or condemned . . . . .                     | 8,800  |

## REPORT OF THE COMMITTEE ON POSTMORTEM MEDICOLEGAL EXAMINATIONS

The Committee on Postmortem Medicolegal Examinations is charged with the general administration of the Medical Examiner System of the State of North Carolina. This new system became available to counties of the State January 1, 1956, having been authorized by Chapter 972, Public Laws of North Carolina, 1955. This system is designed to provide modern medical and scientific help to local officials in determining the cause of unattended deaths. Individual counties of the State may join or leave the system by resolution of the Board of County Commissioners.

Counties in the system recommend a qualified physician as county medical examiner as well as additional qualified physicians who may act as assistant medical examiners. These examiners examine the circumstances of each unattended death.

District pathologists are appointed by the Committee to perform autopsy examinations at the request of the county medical examiner. Toxicological analyses are provided by the Toxicology Laboratory at the University of North Carolina established at the request of the Committee.

The Committee has the following composition: Dr. J. W. R. Norton, Raleigh, Chairman; Dr. K. M. Brinkhous, Chapel Hill, Secretary; Dr. T. D. Kinney, Durham; Dr. Harry Carpenter, Winston-Salem, who replaced Dr. S. Foushee in 1959; Mr. Holt McPherson, High Point; Mr. Walter Anderson, State Bureau of Investigation, Raleigh; and Mr. C. D. Barham, Attorney General's Office, Raleigh. Dr. W. W. Forrest, Greensboro, serves as a consultant to the Committee. Dr. J. H. Hamilton, Raleigh, also served as a consultant until his retirement in 1960. Dr. R. H. Wagner serves as toxicologist.

At the present time there are two counties active in the system. Guilford County has been active for a number of years and Transylvania County has joined the system in 1962. Four other counties have been in the system at various times: Pope, Union, Wilkes, and Cumberland.

Toxicological analyses are an integral part of this system and are provided without charge to the counties. Initially, these analyses were made on a case basis at Duke University. Since 1958, they have been made at the Toxicology Laboratory at Chapel Hill. This laboratory was set up especially for this purpose, both as to equipment and personnel. Painstaking work is needed in the development of each analytic procedure to be used.

The laboratory is now prepared to carry out the following analyses:

(1) Quantitative and Qualitative Tests: Acetaldehyde, Acetone, Arsenic, Barbiturates, Carbon monoxide, Carbon tetrachloride, Chloral hydrate, Chloroform, Cholinesterase activity, Cyanide, Ethyl alcohol, Flourides, Formaldehyde, Isopropyl alcohol, Lead, Meprobamate, Mercury, Methemoglobin,

Methyl alcohol, Nicotine, Pyribenzamine, Quinine, Salicylates, Sparine, Strychnine, and Trichloroethylene.

(2) Qualitative Tests Only: Bismuth, Antimony, Alkaloids, Barbiturates, Morphine, Demerol, Phenols, Doriden, Phosphorus.

(3) Analyses needed or in the process of development are: Bromides; Quantitative analyses for other heavy metals; Blood lead; Glucosides; Toxins (Bacteriological Assays); Gas chromatography of volatile materials.

In 1960-61, 59 cases were examined with 200 analyses. In 1961-62, 84 cases were examined with 246 analyses. Each case appears to be different, being an individual research problem.

The chief needs of the Medical Examiner System are related to methods making it more effective and generally available throughout the State. These needs include:

(1) Elimination of the coroner's office as a mandatory Constitutional office, and

(2) Development of a state-wide system with a full-time chief medical examiner.

The aims of the Committee are to carry on the program as presently organized in a sound manner and to work for the gradual strengthening of the system. It is believed that a firm foundation is being built for a more widely available and accepted system.

J. W. R. Norton, Chairman

K. M. Brinkhous, Secretary

Committee on Postmortem Medicolegal  
Examinations

## PUBLIC HEALTH CHRONOLOGY-1956-1961\*

1956—During the year Central Files received and filed 209,462 records and made over 36,000 searches for material. The Medical-Public Health Library added 229 books to the Library, reported 3,704 visits and loans of 1,682 books. Federal money appropriated for the purchase of poliomyelitis vaccine made it possible for the State Board of Health to distribute enough for 1,428,000 inoculations. In the field of Maternal and Child Health there were 4,609 clinic sessions which rendered assistance to 34,000 maternity cases and 53,000 infants and pre-school children. The year 1956 was the 40th year of service which the State Laboratory of Hygiene has rendered to the people of North Carolina.

1957—1957 was marked by a bond burning of the last of \$160,000 self-liquidating bonds which were retired on July 1. The Conjoint Session of the State Board of Health and the State Medical Society was held in Asheville. Much progress was shown in the work of the Division of Epidemiology, especially in the reduction of reported cases of infectious syphilis during the past ten-year period was from 7,313 in 1948 to 5,440 in 1957. The polio vaccination program has resulted in our having only 229 cases in 1957, the lowest since 1949 when the same number was reported following an epidemic year in 1948 with 2,516 cases reported. During 1957 the Public Health Statistics Section rendered services to several committees of the Medical Society of the State of North Carolina in personnel, tabulating, materials, and supplies.

1958—The early months of 1958 were marked by several events of especial significance to public health. On May 7 Dr. G. Grady Dixon of Ayden died in Hickory on his way home from Asheville after that morning presiding over a Board session and the 1958 Conjoint Session of the State Board of Health and the State Medical Society. Ben Eaton, Jr., filled a new position in April when he became Director of Administrative Services. Dr. R. D. Higgins was appointed in February to succeed Dr. C. C. Applewhite as Director of the Division of Local Health. Dr. Applewhite retired to live in Jackson, Mississippi.

1959—The 1959 General Assembly enacted legislation making vaccination for poliomyelitis compulsory for young children from the age of two months to six years prior to entering school. Dr. Ernest A. Branch died Dec. 3, 1958 after making major contributions to dental health in the State and heading the dental health program of North Carolina for 29 years. Dr. Earl W. Brian of Raleigh was sworn in as a member of the State Board of election by the Medical Society of the State of North Carolina, filling the vacancy created by the death of Dr. G. Grady Dixon. The State Board voted to participate in an allocation formula for Local Health Departments in order to provide incentive for joining the Local Government Retirement System not to exceed \$1,000 per year for any county. Dr. A. H. Elliot, director of the Personal Health Division retired June 30, 1959. Dr. D. Frank Milam returned to the State Board as Chief of the Cancer-Heart Section. Dr. Robert D. Coler, Chief of the Occupational

Health Section, resigned and Dr. William L. Wilson of Texas was appointed. Ben Eaton, Director of Administrative Services, requested a two-year leave of absence for overseas duty effective Aug. 1, 1959. By appointment of the Governor, Jasper C. Jackson, Ph.G., of Lumberton and Ben W. Dawsey, D.V.M., of Gastonia were sworn in as members of the State Board on Sept. 1, 1959. William H. Richardson, Publicity Specialist, retired on Sept. 30, 1959, and Edwin S. Preston, L.L.D., was appointed as Public Relations Officer effective Dec. 1, 1959. Charles L. Harper was appointed Director of Administrative Services, effective Jan. 1, 1960. Dr. William M. Peck, Chief of Chronic Diseases-Radiation, resigned to accept a position as director of public health on Guam. Dr. J. H. Hamilton retired on April 30, 1960, as Director of the Laboratory of Hygiene, Editor of *The Health Bulletin*, and Assistant State Health Director. He has served in public health in North Carolina for over 40 years.

1960—Earl W. Brian, M.D., member of the State Board from Raleigh, died Aug. 1, 1960. Oscar S. Goodwin, M.D., of Apex was elected by the Medical Society and appointed by the Governor to fill Dr. Brian's unexpired term.

1961—Mrs. W. Kerr Scott of Haw River was named to the State Board to fill the unexpired term of Mrs. J. E. Latta of Hillsboro, resigned. On March 17, 1961 the licensing responsibility for nursing homes was transferred from the Medical Care Commission to the State Board of Health. A ten-member Advisory Committee was set up to counsel on nursing homes. On May 10, 1961 Glenn L. Hooper, D.D.S., of Dunn and D. T. Redfearn, B.S. of Wadesboro were appointed to the State Board by Governor Sanford. Jacob Koomen, Jr., M.D., M.P.H., assistant director of the Division of Epidemiology, was named Assistant State Health Director to begin that service Oct 1, 1961. The auditorium of the Laboratory Building was renovated and redecorated and dedicated by the State Board as "The John Homer Hamilton Auditorium".

*A Chronological report year by year from 1877 to 1952 is contained in the 34th Biennial Report covering the period, July 1, 1950-June 30, 1952 and a similar report for the years 1952-1955 inclusive is contained in the 38th Biennial Report.*









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